

EMERGENCY MANAGEMENT

STRATEGY AND LEADERSHIP IN CRITICAL TIMES

SEPTEMBER/OCTOBER 2014



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STORMS AND SEA-LEVEL RISE.
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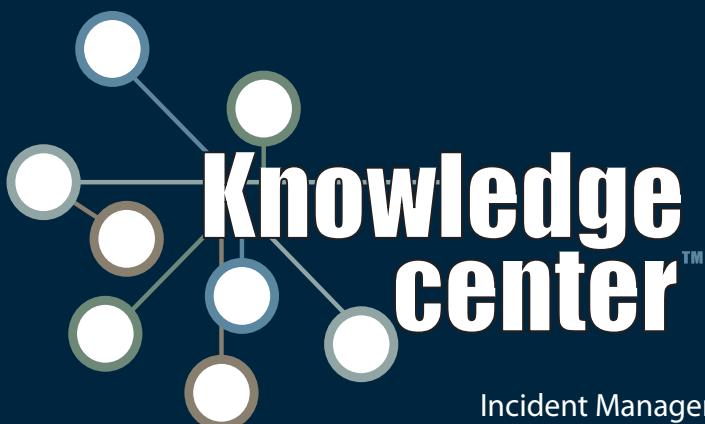
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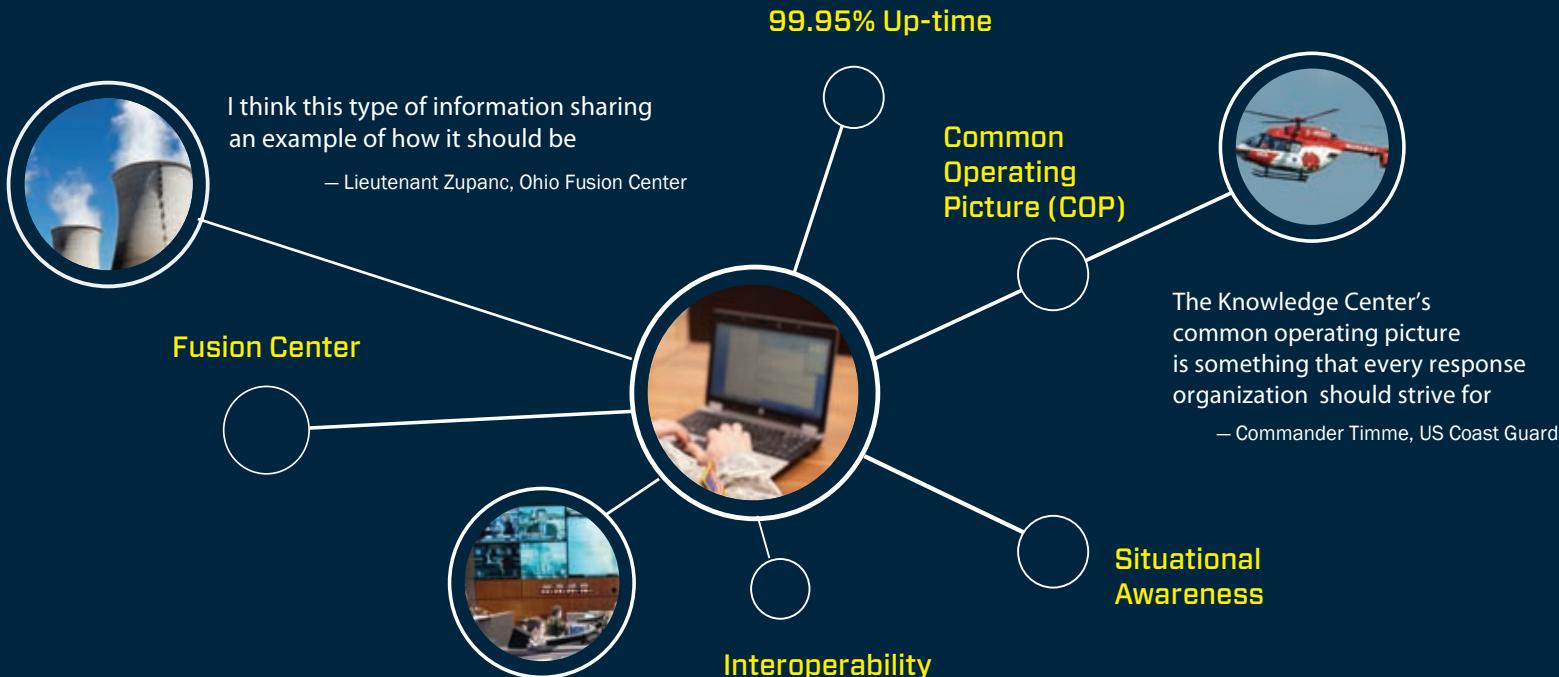
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REBUILD BY DESIGN

*In an emergency, information is everything.
Make sure your network can deliver.*

Dependable, efficient emergency response requires redundant and reliable communication networks. IP-enabled networks can expand what's possible, helping dispatchers transfer information to police officers before arriving at the scene or send video or floor plans to fire officials on the job. Download the Public Safety Guide to learn more about the challenges agencies face as they transition to the infrastructure of the future.

att.com/publicsafety



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MICHAEL RIEGER/FEMA

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Freedom of Information/Public Records Request

Part I: I hereby request to: Inspect Copy the following records:
(please be specific and include names, dates, keywords, and name of record type where possible).

Please provide all Everton City and Police Department social networking content from May of 2012 regarding special notices and street closures related to the Everton Memorial Day parade

Part II: What format do you request? Electronic Paper

Part III: Name of individual(s) requesting information: John T. Miller
Address: 1076 Freedom Way City: Everton State: TX Zip: 78996
Phone: (210) 867-5309 Email: jpublic1@gmail.com



For Internal Office Use Only

Date Request Received: **July 1, 2014** Request Status: **Pending**

Notes: Staff has invested more than ten hours scrolling through social media pages and collecting stored screenshots from department hard drives. Citizen comments no longer available, City Attorney issued subpoena to social network - response still pending after four weeks.

HOW WILL YOU RESPOND?

ArchiveSocial automates the capture and retrieval of records from social networks including Facebook, Twitter, YouTube, Instagram, and LinkedIn for compliance with state and federal public records laws.

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Major Player

The Recovery Mission

What did you see when you got to the scene? Eight hundred acres of land. The insurance had come down and had taken out a lot of trees. There was a lot of debris and the flooding had spread out more than a couple of miles because it had blocked the river. We had to go through a lot of debris to get to the standing of what was left. It was really just a messiness, dirt, water and broken trees was what was left.

Did anything surprise you about what you saw? Honestly there were no surprises. We knew we were in a recovery mission. We came in on Saturday morning, Sunday and Tuesday morning [the flood] started on Saturday, March 22 and prior to the flood.

Regional Collaboration

Breaking the Silence

A new joint radio system is being utilized by emergency responders to communicate effectively for the first time to 82 groups.

By Jason Brown

In a few short days the 'The Recovery Mission' With the Mississippi River flowing through the state in spring of 2011, the state of Wyoming faced one of its worst flooding events in history. In response, the state's emergency management agency, the Wyoming Emergency Management Agency (WEMA), worked with the state's local governments to develop a plan to respond to the flooding. The plan included establishing a joint radio system for emergency responders to communicate effectively during the flooding. This system, known as the 'The Recovery Mission', allowed emergency responders from different agencies and departments to communicate effectively during the flooding. The system has since been used in other emergency situations, such as the 2012 Colorado floods, and has proven to be a valuable tool for emergency responders in Wyoming.

The Search for Interoperability

The communication challenge first became apparent in 2008 when the state's government agencies began to merge. Initially, the police department and fire department had separate radio systems, which made it difficult for them to communicate with each other during emergencies. The state's emergency management agency, WEMA, recognized the need for a unified communication system and began to work with the state's emergency management agency, WEMA, to develop a joint radio system. The system was developed to allow emergency responders from different agencies and departments to communicate effectively during emergencies. The system has since been used in other emergency situations, such as the 2012 Colorado floods, and has proven to be a valuable tool for emergency responders in Wyoming.

Thank you, Thomas Richardson. Most people are not of the same mind as you and not willing to give the volunteers the credit they are due. If not for the loggers and their equipment and expertise, it would have been a much different recovery.

KGA — in response to *The Recovery Mission* in the July/August issue

Wyoming implemented this during the last half-year, entering into a contract with CodeRED for IPAWS access and under the contract, CodeRED grants all Wyoming counties access through that system so the counties can issue county-level IPAWS alerts. It's not just the big populated states that are doing things ... some of us "rural" areas are quietly getting it done.

David King — in response to *Alert Systems: Lead or Tag Along?* in the July/August issue

This is an excellent example of a collaboration for the better. In my eyes, however, they spent too much money with the solution of just buying new radios. There are systems out there that create bridging between radio systems, allowing

communication across them all. Mutualink is one company that you can plug almost any radio into the server and broadcast across all of them. This system is already used by major agencies around the country, would have been a fraction of the cost to implement, and would have allowed responders to continue using the radios they already had.

Greg — in response to *Breaking the Silence* in the May/June Issue

The challenge of interoperability is not the physical ability to talk to each other — that is a prerequisite for interoperable communications. The challenge is having the plans, training, doctrine and culture in place to allow agencies to work together seamlessly. In an emergency, what channels do they go to? Do people know how to get to them? Have differences in terminology been [resolved]? Is the policy and culture in place to allow this to happen?

Alan Colon — in response to *Breaking the Silence* in the May/June issue

Emergency Management Summits

Each summit will address the man-made and natural hazards — fires, floods, earthquakes, terror events — facing the area, as well as best practices in preparing for and mitigating these crises.

www.emergencymgmt.com/events

Date	Cities
Oct. 2	Los Angeles
Oct. 29	Denver
Nov. 13	Minneapolis
Dec. 9	Miami
Dec. 11	Houston



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By Jim McKay

Resiliency Begins Now

When it comes down to it, the ability to respond, mitigate and recover from disasters means being resilient. We used to write about long-term recovery but the ability to recover long term from a disaster really means developing that resiliency beforehand.

This issue of *Emergency Management* is dedicated to resiliency. Whether we're talking about the threat of a catastrophic earthquake or the trends for greater concentrations of water from storms, the concept (or framework as the Rockefeller Foundation puts it) is similar in that it takes partnerships, collaboration and forward thinking.

"Resiliency" can be an all-encompassing term but in the context of this publication we'll use the framework put forth by the Rockefeller Foundation in its 100 Resilient Cities Challenge (see *The Resiliency Challenge* on page 38) of "the capacity of individuals, communities, institutions, businesses and systems within a city to survive, adapt and grow no matter what kinds of chronic stresses and acute shocks they experience."

Such shocks and stresses vary across the country and range from earthquakes, poverty and violence to hurricanes and sea-level rise. As you'll read in the cover story, *Water Wise*, scientists' predictions suggest that an increase in hurricanes is in the offing, along with a rise in sea level. Mitigating these events means more than moving water elsewhere; it means living *with* the water. This story features innovative efforts in New York City and New Orleans to develop plans to live with the increase in water or sea-level rise.

Louisiana launched a \$50 billion coastal master plan to develop resiliency to sea-level rise. It calls for a multifaceted approach, including levee protection, investing in coastal restoration and implementing water use plans within those levees.

New York City's Storm Protection Plan, like the Louisiana plan, takes a comprehensive approach that includes strengthening coastlines, upgrading buildings, reinforcing critical infrastructure and also looks at what the Dutch have done.

Out west, Los Angeles faces the looming possibility of an earthquake of the magnitude that could paralyze the city if and when it hits. For *Preparing for the Unknown*, we looked at different sectors, including transportation, banking, education and the water supply, all of which will need to be up and running ASAP after an emergency. There are interesting scenarios. For instance, the public will need access to cash, and deals are being brokered among banks to cash one another's checks or waive ATM fees. Banks' armored vehicles could also play a role in recovery.

It's imperative after a disaster to get schools reopened as soon as possible to restore some semblance of normalcy. In L.A., communication plans that keep parents abreast of what's happening and evacuation plans are in place. The more preparation and collaboration between sectors and entities, the more resilient the city will be.

In *The Resiliency Challenge*, we feature two of the first chief resilience officers of the 10 U.S. cities chosen for the 100 Resilient Cities Challenge. We talk to Patrick Otellini and Christine Morris, chief resilience officers of San Francisco and Norfolk, Va., respectively, about their new positions and the challenges of creating a resilient city.

Although the kinds of shocks and stresses differ in these cities, you'll notice the path to resiliency has already begun. 

AN AWARD-WINNING PUBLICATION



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In the News

U.S. Sen. Ron Wyden, D-Oregon, wants to reform the way the federal government pays for fighting wildfires. With more than 2 million acres burned in California, Washington and Oregon, as of July 29, federal agencies were expected to spend about \$1.8 billion fighting fires this year. That's \$500 million over budget and it's been a trend. In seven of the past 12 years, the agencies have gone over budget. That means they're using fire-prevention funds to pay for fire suppression, when the money is needed to address drought, bark beetle outbreaks and dense stands of trees for prevention measures. Wyden and others want to use federal disaster money to pay for fighting the largest fires, which would free up \$400 million each year to spend on prevention.



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DHS ADDRESSING CYBERTHREATS AND A CHANGING CLIMATE

IN RELEASING ITS SECOND quadrennial review, a 104-page report, the U.S. Department of Homeland Security (DHS) outlines its efforts to enhance the missions it detailed in the first review in 2010.

Of course the mission of the DHS continues to be combating terrorism, but also taking an all-hazards approach and recognizing the trends in natural hazards brought on by a changing

climate, and understanding and mitigating the possibilities of a devastating pandemic.

The ever present and increasing cyberthreat is addressed and the vulnerability of the infrastructure makes the threat even more ominous. Calling it a “cyber-physical convergence,” the report details the risk of a cyberattack on the nation’s infrastructure, both physical and virtual.

92% OF CYBERATTACKS DURING THE LAST DECADE ARE LINKED TO NINE ATTACK PATTERNS:

- 1/Malware aimed at gaining control of systems
- 2/Insider/privilege misuse
- 3/Physical theft or loss
- 4/Web app attacks
- 5/Denial of service
- 6/Cyber-espionage
- 7/Point-of-sale intrusions
- 8/Payment card skimmers
- 9/Miscellaneous errors, such as sending an email to the wrong person

SOURCE: VERIZON

SHUTTERSTOCK



Why Is the Heartland Shaking?

Months after the prairie began to shake, scientists still struggle to explain a surge in Kansas earthquakes that appears connected to increased fracking.

The Kansas quakes are part of a major escalation in earthquakes that have struck the nation’s heartland in the wake of the oil and gas boom. The epidemic has hit places in Texas and especially Oklahoma where earthquakes used to almost never happen, with scientists increasingly pointing the finger at deep underground injection of drilling waste that effectively lubricates and weakens fault lines.

“Unless we get the data sooner, it will be very difficult to say anything about whether there is any connection from wastewater wells to the earthquakes until next March,” said Justin Rubinstein, a geophysicist with the U.S. Geological Survey. Rubinstein said potential causes for the quakes include the wastewater injection wells, the fracking process itself or simply the hand of nature.

SOURCE: MCCLATCHY NEWS SERVICE



SHUTTERSTOCK

IOWA TO RELEASE INFO ON HAULING EXTRA-FLAMMABLE CRUDE OIL

Iowa officials plan to alert the public about trains carrying 1 million gallons or more of extra-flammable crude oil across the state — despite railroads’ argument that the information should be kept secret.

Canadian Pacific Railway and BNSF Railway notified Iowa Homeland Security and Emergency Management in June that they are hauling trains through Iowa with 1 million gallons or more of crude oil from the Bakken region in North Dakota, Montana and Canada.

A third railroad, Union Pacific, reported hauling Bakken crude, but less than the threshold listed in a new reporting requirement from the U.S. Department of Transportation.

SOURCE: MCCLATCHY NEWS SERVICE

EMERGENCY MANAGEMENT SUMMITS

FALL EVENTS

September 24 **Boston**

October 2 **Los Angeles**

October 29 **Denver**

November 13 **Minneapolis**

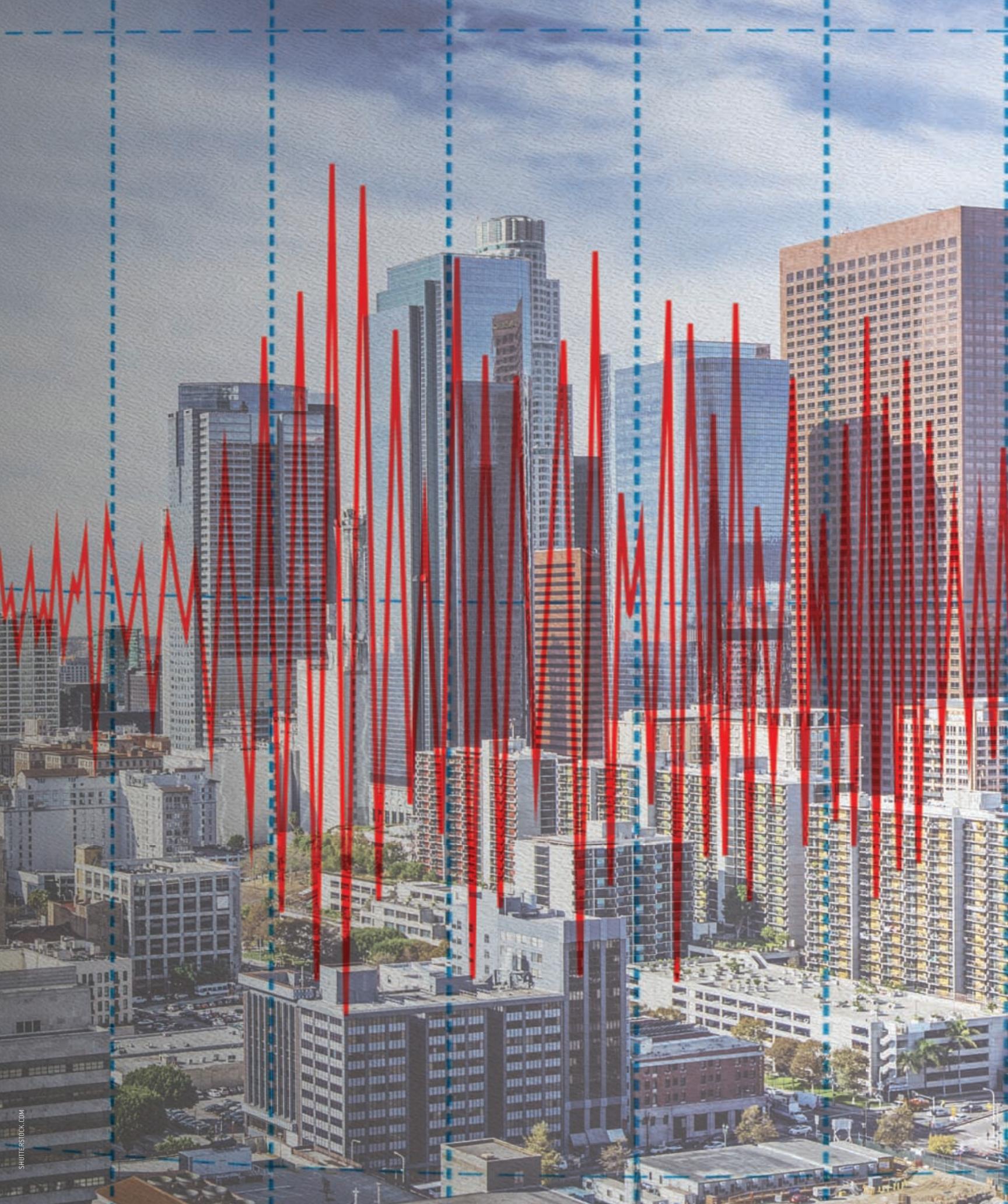
December 9 **Miami**

December 11 **Houston**



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PREPARING FOR THE UNKNOWN

Los Angeles prepares for the big quake amid the questions of when and how large.

It's referred to as the Big One, the cataclysmic earthquake that will devastate Los Angeles when the ground around the San Andreas Fault gives a dramatic heave. Seismologists agree that it's a matter of when, not if, it happens, and that the resulting damage will be incalculable in the city of more than 4 million residents and 400,000 businesses.

Emergency response will have to come on multiple fronts at once. Beyond the immediate imperative of saving lives, the emergency community will need to coordinate activities in the realms of transportation, health, finances and diverse other sectors to stabilize the city. Water will be a particular concern in an area that relies largely on outside sources for its supply.

At the highest levels of emergency planning, authorities take a long view, putting in place contingencies for a range of possible scenarios. "What is big? Is it Haiti big? Katrina big? Or will it be Los Angeles big, and what does that really mean? How can we categorize it?" said Anna Burton, interim general manager of the Los Angeles Emergency Management Department. "Then we consider all those possibilities and ask: What have we done and what do we need to do to prepare the city?"





Los Angeles has the task of developing resiliency to a catastrophic earthquake that is difficult to predict.

Given the magnitude of the event, it helps to begin by breaking down likely responses by sector. Brent Woodworth, Los Angeles Emergency Preparedness Foundation president and CEO, describes a number of response scenarios.

Transportation encompasses diverse forms in this geographically dispersed city. There are bridges, highways and rail systems, as well as service providers, such as bus companies and rail lines. Woodworth said an effort began in 2008 to identify the major stakeholders in this realm and get them to the table.

The resulting Community Stakeholder Network examines transportation resilience, among other topics. It tracks historical data to gauge likely points of crisis: Where will the roads jam? What alternate routes will be available? The task is to combine historical data with as much real-time information as possible and create a better

understanding of how to answer these questions and guide critical resources.

Banking's first priority will be to give the public access to much-needed cash. Here again collaboration is key, as Woodworth's office works to encourage information-sharing among major institutions. Private-sector participation is critical: The government doesn't track ATM locations and will need the cooperation of banks during a crisis. Banks' armored vehicles could play a key role in alleviating the pressure.

To make the wheels turn smoothly, emergency planners have helped broker reciprocal deals in which different banks will agree to cash one another's checks or waive ATM fees in an emergency.

Schools will need to be ready not just to safeguard lives, but also to calm parents. Beyond pre-staging evacuations, schools are being trained to put in place formal communication plans, to keep worried parents from

running to the door to claim their kids. In the aftermath of an event, the reopening of schools also will be a top priority. "These are some of the things that are most important to restore as a society, to show that you are in recovery," Woodworth said. "You want to demonstrate a return to normalcy."

In the first days and weeks following a major event, the city will likely go dry. Antiquated water pipes and connectors will fail, their brittle structures rupturing in too many places to even make repairs a possibility. Long-term replacement will be the only fix, and with supplies quickly running short, this process could be even more protracted.

As a hedge, Mayor Eric Garcetti has said he would like to cut the city's dependence on imported water in half by 2025. However, that still won't be enough to stop an imme-

diate and profound drop in the water supply. For the vast majority of citizens, nothing will come out of the tap for days or weeks.

The Emergency Management Department has mapped out a response plan. It has charted key distribution points in neighborhoods across the city for distribution of gallon jugs. The department has mapped out likely traffic routes to these locations and teamed with local big-box stores to make water as well as other staples available.

Public education efforts constantly tout water preparedness as a necessary part of every home's emergency planning. Most recommend keeping on hand three days' worth of water at five gallons per person per day.

For emergency managers, the water peril may require new ways of thinking, said April Kelcy, founder and consultant for Earthquake Solutions in Irwindale, Calif. "Most emergency management people are still fighting the last war," she said. "People don't stop to ask the essential question: What has changed?"

A simple example illustrates the point. "Throughout the modern past people have had a hot water heater in their homes, typically 30 or 40 gallons," Kelcy said. "Today the general policy in the region is to take them out and go tankless, to have a continuous stream into the house with no reserve water."

That might be good short-term policy, but it removes a significant, built-in source of emergency supply. The heaters can be a critical source of water for people in the aftermath of an emergency.

The message for emergency managers is that while distribution points and supply chains are vital, it's just as important to engage in public debate to help shape policy with disasters in mind, even when others may be eyeing shorter-term objectives.

Los Angeles is famous for its extensive network of roads, bridges and highways, its graceful interlocking overpasses. Should these buckle or crumble, which many likely will, it will fall to the city's Department of Transportation to do much of the heavy lifting in terms of restoration.

"The ultimate goal is to re-establish mobility, open the major highways, the rail lines, the mass transit system," said Aram

Sahakian, transportation engineer in the department's Special Traffic Operations Division. The first priority will be to open relief routes and then to work out from there. "But not everything is going to be back up and running instantaneously."

In the first 48 hours, the department likely will be taking the lay of the land, assessing equipment and resource needs and availability, and developing situational awareness. The department's own emergency operations center will coordinate with the city's EOC to make the best use of its 100 engineering personnel and more than 300 traffic officers.

While the details are always changing — you need a range of contingency plans in the face of an undefined threat — it's clear that debris removal will be a top priority. To this extent, the department is working with the Bureau of Public Works to ensure outside actors will be ready to move.

"There are contracts in place where companies need to stop all their operations and come be part of the emergency. There is an understanding that all these companies will have their heavy equipment available," Sahakian said. For emergency planners, contracts alone are not sufficient. "We send our people to train. We don't just exercise internally, but there are also constant exercises with the private sector. And this is not just training; it is also about meeting people and developing relationships."

But if L.A. falls into a hole in the ground, how long will it take for the city to be drivable?

"There are just too many timelines, too many agencies, too many things that must move forward for the final plan to move forward successfully. So there is no way to put a timeline on it," Sahakian said. "Would we be up and running in six weeks? I wouldn't even know how to answer that question."

The impact on communications would be virtually immeasurable. Should the Internet, TV or other avenues go down, the public would lose major sources of information. Power stations and other Internet-connected utilities could suffer significant failures. Emergency response locations could find themselves cut off.

"We think data communications would come to a screeching halt," said Patrick Mallon, executive director of LA-RICS, an organization tasked with creating data and voice networks that could withstand a major disruption. Such a network would have to span the 81 public safety agencies presently operating on 40 different radio systems.

If the crisis came today, emergency responders could probably communicate over an ad hoc patchwork of radio networks. In the long term, LA-RICS is looking to create something more formal, thanks in part to a \$154 million grant from the U.S. Department of Commerce.

The group already has procurements in place with Motorola to develop data and voice networks that would incorporate some 229 sites, enough to keep information flowing relatively smoothly. Ideally the data network would be in place by 2015. Ten years from now, voice communications would share a common platform for seamless and instantaneous contact.

In the meantime, emergency communications will likely mean pounding the pavement. "In severe cases, law enforcement officers would have to go door to door. They do that with fires, telling people to evacuate. But that would be a last resort," said Joyce Harris, previously a public information officer with Los Angeles County and now an emergency management consultant for Dewberry.

BUSINESS READY?

Should the big one hit L.A. today, emergency responders would find themselves rushing to the aid of a business community that is mostly unprepared for a major event.

75%

of workers say natural disasters have not caused their employer to reassess safety plans.

1/2

say their employer is prepared for an earthquake, and a third of those surveyed say their employer is not prepared for any disaster.

1/3

say their company communicates business closings at the last minute when bad weather strikes.

1 in 10

West Coast employees say they don't think their company takes safety seriously and nearly 1 in 6 do not feel comfortable voicing their safety concerns.

SOURCE: STAPLES SAFETY RESEARCH CENTER

To survive and rebuild after the big one, experts say, the city will need a high degree of organization in its emergency systems.

There won't be the time or resources available to just pull it together on the fly.

Garcetti recently announced that he will appoint L.A.'s first chief resilience officer, as part of the Rockefeller Foundation's 100 Resilient Cities campaign. The new position comes as the City Council ponders several seismic safety initiatives, including a plan to investigate potentially dangerous concrete and soft-first-story buildings. That's been a hot topic ever since the *Los Angeles Times* reported that at least 50 of more than 1,000 old concrete buildings in the city likely would collapse in a major earthquake.

Garcetti announced the new effort just before the 20th anniversary of the 1994 Northridge earthquake, which killed 57 people. That event still looms large in the local psyche, a constant reminder of the deadly potential that lies just below the surface of the soil.

The city already has a fairly high degree of organization within its emergency response community. By necessity, planners have taken the massive tangle of interwoven systems and tried to divide it into manageable chunks.

"When we look at it, we have a department of 23 people and we have broken it down into divisions," said Burton in the Emergency Management Department. There's a planning, training and exercise division; a facilities

division for the city's EOC; and a communications division for public information, social media and communicating with public information officers from various departments.

Then there's the geographic breakdown. "We have assigned a professional emergency management coordinator to each district in the city, four individuals who know the police and fire commanders in their districts, who know where the critical facilities are, who know where the primary stakeholders are," Burton said. "So if something is happening in an area, somebody is going to be able to say just what is going on in that area."

While the Emergency Management Department attacks the planning situation by chipping down the iceberg into smaller cubes, others are taking the reverse approach, stepping back from the individual components to tackle the greater whole. A key player in that effort is foremost seismologist Lucy Jones of the U.S. Geological Survey. She is consulting with the city in an effort to develop a comprehensive resiliency plan. To do that, she said, everyone will need to take a holistic view.

"If you are the kind of person who gets into the details, you are never going to get a plan of this size," Jones said. "You get lost. So you have to have people who can step back and see the big picture. You need someone who can get out and see the big landscape."

In the case of emergency management, for example, this means looking beyond the daily needs of such elements as firefighting

and medical response, to consider the ability of these elements to function citywide, to operate smoothly. "Your failures happen in the parts of your systems that are already weak, so everyday resilience is a big piece of your planning, even before response," she said. While emergency systems may show few potential fault lines, so to speak, emergency planners need to be aware of the other areas in which systemic failure is likely.

This brings us back to water. "These systems are old — they are the first things put into buildings, so by now they are brittle," Jones said. "There will be communities where the only way to repair the water system will be to build a new one, and it will take us six months. And that is a best-case scenario."

Jones is convening experts to address the water situation systemically, and she said the city could soon have a viable plan to carry it through the next 50 years.

For emergency managers in the short term and city officials in the long term, Jones urges a dose of realism. Even if all the planning and preparedness proves successful, a major quake along the San Andreas Fault will not be readily remedied. "We can't prevent all the losses," Jones said. "We are trying to prevent enough of them to prevent a mass evacuation where the economy comes apart. That will be the measure of real recovery. And I really do think we can do it." +

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Check out our sister publications for more on resiliency efforts across the country.

GOVERNING



Governing: The newfound enthusiasm for "resilience" is changing local policy across the country. In coastal cities such as Norfolk, Va., as well as inland places like Dubuque, Iowa, resiliency efforts are helping address longstanding problems and anticipate new ones.

GOVERNMENT TECHNOLOGY



Government Technology takes a look at the role sharing economy platforms like Airbnb and TaskRabbit are starting to play in helping communities respond to disasters. They also interview technology leaders who've endured major emergencies — natural and man-made — with advice for their peers on planning they should be doing today.

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By Margaret Steen

There are times during disasters when first responders will be overwhelmed and unable to do all that needs to be done without help from volunteers, who will do much of the work either in an organized fashion or spontaneously.

Volunteers are an important cog in disaster response, and developing a volunteer program before disaster strikes can be invaluable. It allows emergency responders to focus on some of the more major tasks as volunteers handle easier work like traffic control and light search and rescue.

Developing a volunteer program “saves lives and money,” said Karen Baker, California’s chief service officer and head of CaliforniaVolunteers, part of the governor’s office.

A good volunteer program needs up-front planning and recruitment, and it needs to keep volunteers engaged in between emergencies. A first step for local emergency management professionals who think they need a volunteer program is to decide what they want volunteers to do.

“Some people just want to train the local community to be sure people know what to do in an earthquake [or other disaster],” said Suu-Va Tai, a disaster program specialist with CaliforniaVolunteers. “They’re just training them — they don’t see them again. They don’t have the infrastructure for volunteers.”

VOLUNTEER FORCE

How to recruit, retain and organize volunteers.

Other departments need help regularly, not just during emergencies, he said. Especially when they have been hit hard by budget cuts, agencies may want volunteers to answer phones and do other routine tasks.

Whether just training locals or developing a program, it's important that it be defined as such. "You need a job description," said Dave Nichols, medical reserve and workforce deployment manager for Public Health of Seattle and King County, Wash. A big part of Nichols' job is managing volunteers, and he is also a volunteer with ShelterBox, a British nonprofit that responds to disasters around the world. "If you just recruit people and don't do anything with them, they'll disappear."

Nichols offered suggestions for where to find volunteers:

- Colleges and universities are good sources, especially if they have training programs for doctors, nurses, pharmacists and veterinarians — all people with skills that are valuable in emergencies.
- Churches and fraternal organizations like the Rotary or Lions clubs are also good places to ask: They have members who know the community and are often seeking opportunities to help others.
- Ask other emergency response groups such as the American Red Cross. "What might be a disaster for us, might not be a disaster for those groups," Nichols said.
- Approach the private sector, since many companies match dollars for volunteer hours to encourage community service.
- Retirees are another good source — with the baby boomers leaving the workforce, there are a lot of skilled people who may be interested in volunteer opportunities.

After developing a roster of volunteers, it's important to train them to the job description, perform background checks on those who may end up working in situations where that's necessary like a hospital, and create a database to keep track of them.

Ideally every participant is an affiliated volunteer — signed up, given a background check and trained in certain areas, said Barbara Nelson, a community educator with Pierce County Emergency Management in Washington. Nelson's office also tries to associate volunteers with agencies or organizations that can use their help. "For example, when we have donations in our county, the Salvation Army is in charge

of that," she said. "We can support them with people trained to support them."

Shelter volunteers work with a variety of groups, including churches that open emergency housing when necessary. "All of these people are background checked, and they've had specific training for how to open a shelter," Nelson said. "We know where they're from and what their capabilities are, and we can put them to work right away."

Once the list of volunteers is developed, it's also important to keep participants engaged. If volunteers are recruited for just a one-time event, they may not respond the next time unless they're continually engaged, Tai said. "You need to find different activities to engage with them and keep them training."

Nichols' program includes a reserve corps of 700 active volunteers who are used frequently in the community. About half are medically licensed, and the rest are support volunteers who can handle logistics. To become a volunteer, a person must attend an orientation and take two FEMA courses. Then, after a background check, they receive a badge and vest that identify them as volunteers.

Nichols' department uses volunteers to test its ability to handle mass vaccinations by giving flu shots to the uninsured. He also calls on volunteers to support the American Red Cross when it opens a shelter.

"I spend a lot of time trying to find things for my people to do, not make-work but real stuff," Nichols said. "That keeps them engaged, plus it adds people to our pool."

It's helpful to have volunteers working regularly, and it's crucial to know both how to activate the volunteers and what they will do when disaster strikes.

California is developing a statewide Disaster Volunteer Network, an online tool to help local programs manage their volunteers. "If you're an emergency manager at a county level who wants to understand the footprint of Spanish-speaking CERT volunteers that have had training in traffic control, you can find out," Baker said.

Debbie Goetz, community planning coordinator with the Seattle Office of Emergency Management, said her office coordinates volunteer ham radio operators. In case of



disaster, a few of them are designated to report to the EOC, where they will receive information from others in neighborhoods around the city. "They would start doing field reporting," Goetz said. Looking for problems with bridges and the transportation system, for example, or places where large-scale rescues are needed.

Nichols' office uses the WAserv (Washington State Emergency Registry of Volunteers) Web-based system to reach volunteers, though they must have Internet access to see it. The organization also is creating a plan to use ham radio operators to contact volunteers if necessary.

It's important to plan realistically, as well. "In a catastrophic event, we expect not to have 700 volunteers — some will be affected by the event and some will be out of the area," Nichols said.

In addition to the volunteers who were scheduled but can't make it to help, there will be spontaneous volunteers who show up. Their motives are good, and in the right situation they can be helpful. But they can also create complications and be a distraction during the middle of an emergency, which is not the time to figure out who people are. However, since these volunteers are



inevitable, it's important to think through what they will be able to do and have a plan for that. For example, spontaneous volunteers are perfect for certain jobs, such as filling sandbags and clearing rubble, where a background check isn't necessary.

The effort invested before an emergency is invaluable. "We spend a lot of time and effort trying to get people signed up ahead of time," Nichols said. His office is working with local hospitals to develop a system so that emergency workers could recognize hospital employees' badges and know which badges mean the person has had the proper background checks.

One way to handle volunteers is to set up a reception center. Ideally the center should be away from the area impacted by the disaster, so volunteers can be organized and assigned to appropriate jobs before being bused to the site, according to Nelson. "When you have a situation where you have a lot of people coming in and offering to help and you don't have any idea who they are or what their capabilities are, that's when we open a volunteer reception center." +

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Plan for Success

Beyond initial planning and recruiting, experts offer these tips for creating a successful volunteer program:

Affiliate with statewide or other organizations.

The first responders to a disaster are local, with the state providing resources when local resources can't meet the needs. CaliforniaVolunteers has a seat in the state operations center, said Karen Baker, chief service officer for California. She leads CaliforniaVolunteers, and it can help mobilize extra resources for a community in need. "The state has your back, because it can tap volunteers in the community or in a neighboring community to immediately come to the aid of fellow Californians," Baker said.

Make local connections.

Barbara Nelson, a community educator with Pierce County, Wash., Emergency Management coordinates efforts not only of official volunteers but also of local organizations, including the Red Cross, the American Legion and churches that respond to disasters. "We started at that point of trying to identify who is available with what sort of resources," said Nelson. "We wanted to make sure we did this in an organized way."

Don't overpromise.

"If the bottom line is that you need help with data entry and traffic control, and you recruit someone to become part of the fire team, you're going to attract someone who's going to want a high activity level when you want administrative support," Baker said. "Don't do false advertising — be accurate with what kind of volunteer experience you can promise, deliver and support."

Learn about liability.

Volunteer coordinators should learn what the laws are in their state regarding liability coverage for volunteers who are injured while helping in a disaster, said Suu-Va Tai, a disaster program specialist with CaliforniaVolunteers. With proper training, they can assess the need for waivers or additional insurance.

Track volunteers' hours.

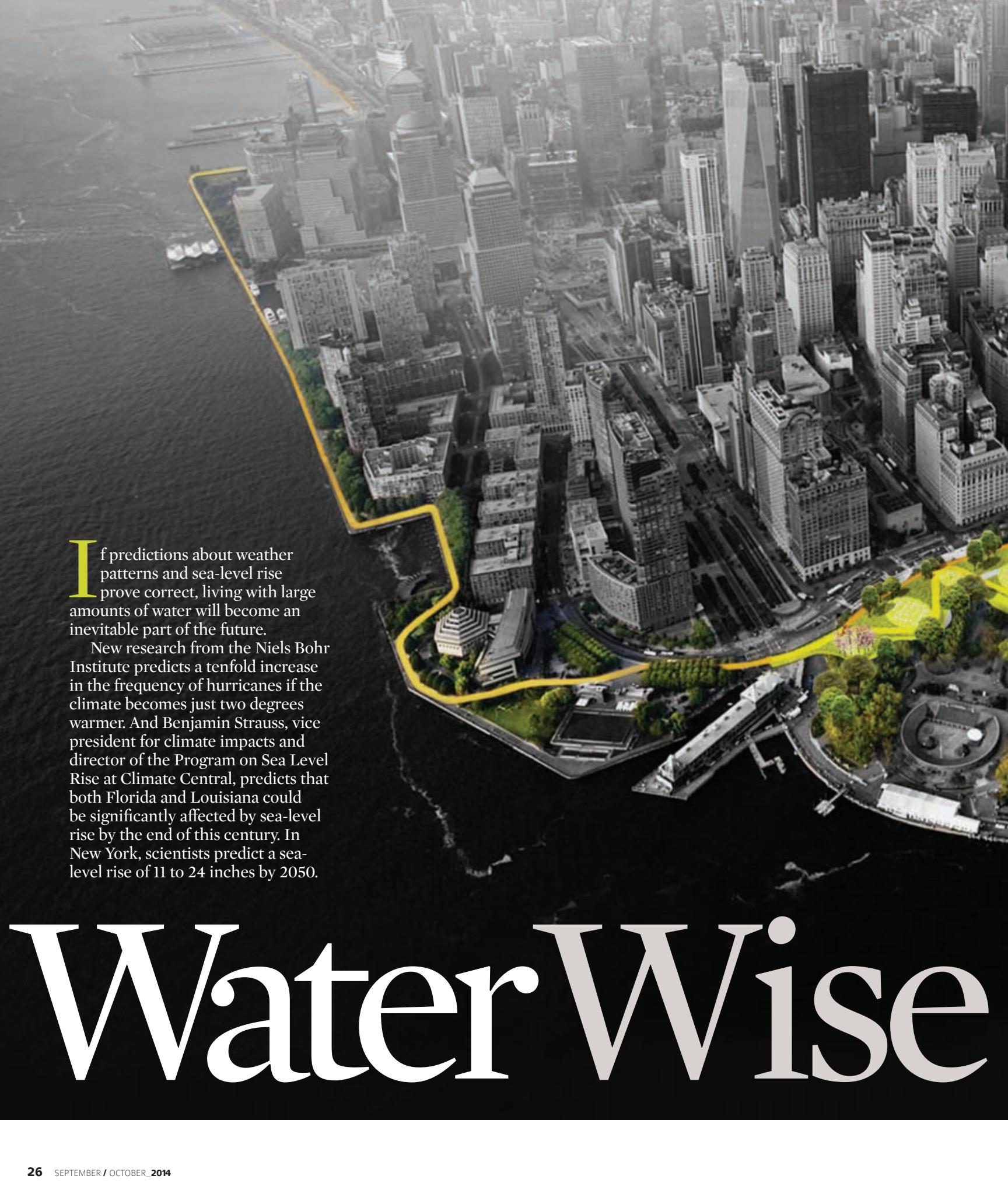
Knowing how much time volunteers put in helping after a disaster can be helpful later on, because they can be translated into local hours and count toward federal matching funds, Nelson said. It helps to have detailed sign-in and sign-out sheets, and also to document what the volunteers are doing so an hourly rate can be assigned.

Use volunteers for a variety of activities.

"It's important that you don't create a response junkie; you are going to need them in all phases," Baker said. "Ensure your volunteers understand out of the chute that they are going to be needed for a variety of tasks."

Show volunteers they're appreciated.

"If you have a great volunteer coordinator, you will be amazed at the lengths volunteers will go to for that person," said Tai.



If predictions about weather patterns and sea-level rise prove correct, living with large amounts of water will become an inevitable part of the future.

New research from the Niels Bohr Institute predicts a tenfold increase in the frequency of hurricanes if the climate becomes just two degrees warmer. And Benjamin Strauss, vice president for climate impacts and director of the Program on Sea Level Rise at Climate Central, predicts that both Florida and Louisiana could be significantly affected by sea-level rise by the end of this century. In New York, scientists predict a sea-level rise of 11 to 24 inches by 2050.

WaterWise



New York City is examining potential projects to make it more resilient to flooding. One project, the Big U, would create a protective system around Manhattan, shielding it from storm water.

There's more to managing water than building dams and walls. New York City and New Orleans are among the cities investing in innovative new water management plans designed to enable them to more effectively live with water. By Justine Brown

Some states, particularly those that have been hit with major hurricanes in the last several years, are taking action to prepare for a water and hurricane-intensive future. Recently both New York and New Orleans announced broad new water management plans. But unlike previous plans, these innovative tactics involve a more collaborative approach, including working with Dutch water management experts and a focus on working with water rather than trying to pump it all away.

NEW ORLEANS' URBAN WATER PLAN

In 2012, Louisiana state officials released a \$50 billion, 50-year coastal master plan to address the state's overall vulnerability and sea-level rise. In late 2013, Greater New Orleans Inc., a regional economic development organization, added an additional piece to that effort — an Urban Water Plan for Orleans, Jefferson and St. Bernard parishes.

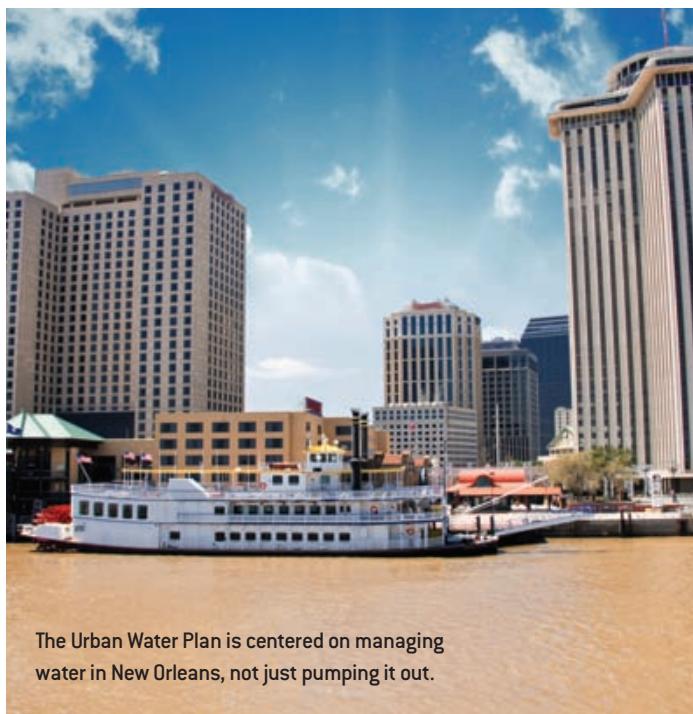
"We need to address our water issues in a comprehensive way, recognizing that one solution alone is not going to work," said Robin Barnes, chief operating officer of Greater New Orleans Inc.

According to Barnes, the Urban Water Plan is a multi-pronged approach that focuses on managing water rather than simply pumping it out of the city.

"We don't talk about the Urban Water Plan instead of the levees, but as a way to expand our resilience," she said. "It's a three-legged stool: levee protection, investment in coastal restoration and implementing the Urban Water Plan inside the perimeter. It's about a whole new system for a city that effectively lives with water."

Barnes said the plan incorporates forward-looking, urban design elements and smart retrofits, and overall re-envisioning New Orleans as a flexible network of systems relying heavily on natural processes rather than a city hiding behind higher and higher levees. The overall objective of the plan, which was created by Waggoner & Ball Architects, is to create an "urban landscape dotted with rain gardens and bio-swales and connected with new or upgraded canals and ponds."

"The region's diverse flora and fauna already store, filter and grow with water," the report said. "Integrating these natural processes with mechanical systems enhances the function, beauty and resilience of the region's water infrastructure and landscape."



The Urban Water Plan also addresses another issue previous strategies have not: Pumping large amounts of water out of New Orleans often results in subsidence — a gradual sinking of an area of land.

"Subsidence causes enormous damage to infrastructure, so we had to address the issue of how to counter that," Barnes said. "Pumping reduces flooding in the streets, but it doesn't address subsidence. Doing so requires innovative approaches. There may be places where it may be appropriate to install permeable pavement, for example."

The Urban Water Plan comprises seven initial demonstration projects, including a park on Mirabeau Avenue, sites along the Canal Street Canal in Old Metairie, streets in Lakeview, the Lafitte Greenway project, gardens in Elmwood, a "water walk" near Lake Forest Boulevard in eastern New Orleans and a wetland near the Forty Arpent Canal.

The seven demonstration projects have a price tag of \$6.2 billion, and the city's main

challenge now is securing the resources to fund them. Greater New Orleans Inc. is examining a variety of partnerships and working closely with local government agencies to identify funding mechanisms that could be leveraged to enable implementation of the plan. The organization also believes the plan has a cost benefit and that it could reduce flood damages by more than \$20 billion over the next 50 years.

The Urban Water Plan was developed in partnership with Dutch consultants, who are seen worldwide as experts on water management. According to Barnes, Greater New Orleans Inc. began working with the Dutch just after Hurricane Katrina. The Dutch Dialogues — a series of meetings and conferences on water management — evolved from those discussions, and some of the key elements of the Urban Water Plan incorporate parts of that work.

"The Dutch were a key component of this plan," said Barnes, adding that the Dutch have also learned new things from the partnership.

"The Dutch have done a remarkable job of keeping the North Sea out of their country, but they don't have the dramatic storms we have, so they don't deal with rainfall in the same way," she said. "I think it's been an interesting experience for them to hone some additional skills. We have learned from each other, and we look forward to joint partnerships moving forward."

NEW YORK'S STORM PROTECTION PLAN

In June 2013, then New York City Mayor Michael Bloomberg announced a \$20 billion Storm Protection Plan designed to make coastal communities more resilient to powerful storms. The report details a total of 250 recommendations, including widening or elevating beaches, reinforcing sand dunes, lining exposed shorelines with massive rocks, and placing breakers offshore to blunt the force of waves and help prevent flooding. Because a study conducted after Hurricane Sandy found that much of the worst damage occurred in buildings erected before 1961, the plan also calls for \$1.2 billion to be made available to property owners in older buildings

along the coastline. Those funds will target renovations such as upgrading foundations and reinforcing exterior walls.

Storm protection plans continue under Mayor Bill de Blasio. Earlier this year, de Blasio created the Mayor's Office of Recovery and Resiliency to manage these issues.

"Hurricane Sandy certainly highlighted our vulnerabilities, and we responded by looking at not just what hurricanes and coastal storms might bring to the city, but also a wide range of climate risks," said Dan Zarrilli, director of the office. "The plan itself is comprehensive — it's about strengthening our coastlines, upgrading buildings, reinforcing critical infrastructure and supply chains, and generally making neighborhoods safer."

Zarrilli said the plan involves a number of different technologies tailored to local conditions and risks in various neighborhoods. It also incorporates continuing to work with the Army Corps of Engineers on a number of more traditional responses like armored levees and floodwalls. And like New Orleans, the New York City plan incorporated input from the Dutch.

"The Dutch have 800 years of water management experience, so when we were developing our plans we looked closely at what they have done. We also looked at plans in other parts of the world in an effort to bring a number of best practices back to New York," Zarrilli said. "But one thing we learned was that you can't just pick up someone else's solutions and apply them in New York. Different places face different risks."

Part of the New York plan includes a \$3.6 billion coastal protection plan, of which nearly half is funded at this point. Zarrilli said the city will need to keep sourcing additional funds, continue to work with communities to develop projects, and generally expedite flood protection efforts in every way possible.

"One big challenge we've run into is the perception among some that there is a silver bullet solution out there," said Zarrilli. "But we've learned that the risks are way too varied. We need to advance a broad range of strategies, which is exactly what we're doing."

POWER OF THE PEOPLE

The federal government is also getting involved in helping cities like New Orleans

and New York better prepare their infrastructures for an influx of water. One effort, led by U.S. Housing and Urban Development Secretary Shaun Donovan, is using a crowdsourced approach to generate innovative ideas. Dubbed Rebuild by Design, the project is aimed at connecting the world's most talented researchers and designers with businesses, policymakers and local groups in areas affected by Hurricane Sandy to "better understand how to redevelop their communities in environmentally and economically healthy ways."

"Rebuild by Design encourages collaboration of talent from around the world," said Henk WJ Ovink, senior adviser for Donovan. "Its objective is to promote better understanding of vulnerabilities and to develop projects that become examples for other communities and help foster cultural change to prepare cities for the uncertainties of the future."

Under the Rebuild by Design program, groups of design teams embarked on intensive, community-based design-driven research, analysis and outreach, led by New York University's Institute for



REBUILD BY DESIGN

Public Knowledge, in August 2013. The teams examined critical infrastructure, ecology and water on a regional scale, while also addressing governance, funding and social issues. They also met with experts, including government entities, elected officials, issue-based organizations and local groups, and individuals.

"Each of the teams was tasked with taking a comprehensive approach and a set of interventions that are all connected," Ovink said. "Simply building a wall does not cut it anymore. Instead, they thought about how to change policy, how to structure the governance, how to work with private partners, find ways of working with local agencies, businesses, etc. They then presented a plan that dealt with that complexity but at the same time offered solutions that were innovative."

The potential for replication in other parts of the country and the world was a key part of the project as well.

The effort led to the development of more than 40 design opportunities, which were presented to the public, a jury, the research advisory group, local and federal government agencies, and federal Community Development Block Grant recipients in late October 2013. Incorporating feedback from those entities, the Housing and Urban Development Department then selected 10 opportunities to move forward to develop a proof-of-concept plan, including heavy emphasis on community participation and engagement. On April 3, 2014, Rebuild by Design unveiled the final proposals from the 10 design teams.

One project, dubbed the Big U, is a protective system around Manhattan that includes a number of separate but coordinated plans for three contiguous regions of the waterfront. For example, "Bridging Berm" provides robust vertical protection for the Lower East Side and also offers pleasant, accessible routes into Battery Park, with many spots for resting, socializing and enjoying views of the park and river. Between the Manhattan Bridge and Montgomery Street, deployable walls are attached to the underside of FDR Drive, ready to flip down to prepare for flood events. Along the east and west boundaries of the Battery, which were key inlets during Hurricane Sandy, a proposed "Battery Berm" weaves an elevated

path through the park. Along this berm, a series of upland knolls form unique landscapes where people farm, sunbathe, eat and engage with world-class gardens. In place of the existing Coast Guard building, the plan envisions a new building programmed as a maritime museum or environmental education facility, whose form is derived from the flood protection at the water-facing ground floor.

Ovink pointed to another project, a comprehensive plan to protect Hoboken, N.J., as particularly innovative. That project includes a circuit of interconnected green infrastructure to store rainwater, water pumps, alternate routes for drainage and deploys programmed hard infrastructure and soft landscape. The goal is a path to living with the water.

"Today, 75 percent of Hoboken is in a floodplain," he said. "After the plan is imple-

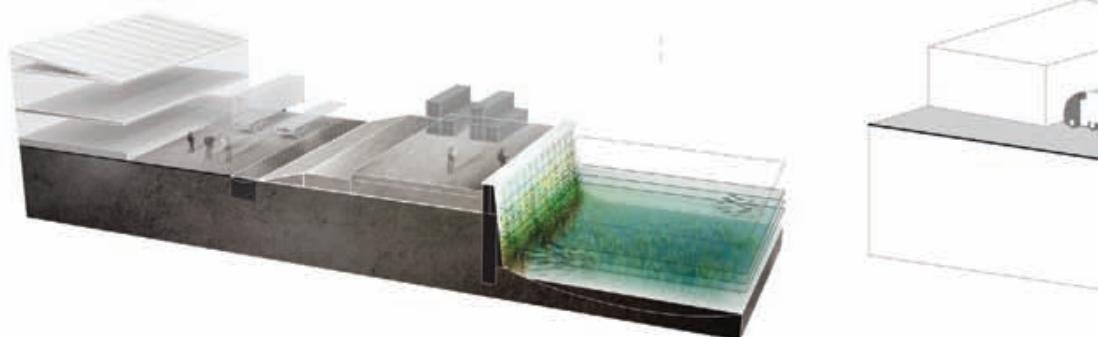
mented, none of it will be in a floodplain. So it's not just about protecting it from storm surge. With climate change and more flooding predicted, we needed to change the whole situation and the way the city is built up to deal with large amounts of water, and this accomplishes that goal."

Ovink, who is from the Netherlands, said Rebuild by Design projects are especially beneficial because they are envisioning innovative new plans during a non-emergency period.

"When disasters strike is not the time to rush into new plans," he said. "After a disaster, people often just want to repair or rebuild what was there because it is familiar. They don't think about how we can do things better."

While projects like Rebuild by Design and new approaches being taken in New Orleans and New York City are steps in

Getting communities to be invested in flood protection infrastructure is key to paving the way for areas to prepare for sea-level rise and increasing natural disasters.

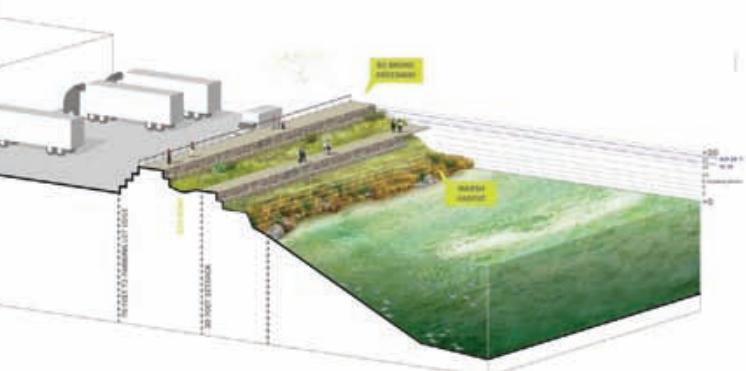


the right direction, Ovink warned that improving water management cannot be accomplished overnight.

"In the Netherlands, we've been working on water management for thousands of years," he said. "It takes at least a generation to get in a better place and another generation to see a change in how the country's built up. You can certainly still do things in the short term — but improving water management is not an engineering job you get done in 10 years. This is about cultural change. You have to rethink how you live and work, you have to change

policies and regulations, and over time you can begin to see a change in how we live with water." 

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Intentions to Action

Mary Schoenfeldt shares decades of expertise on how to create a culture of preparedness.

Mary Schoenfeldt is the public education coordinator for the Everett, Wash., Office of Emergency Management. She is a 2013 inductee into the International Network of Women in Emergency Management hall of fame and has written numerous books on school safety during her 30 years in the field. Schoenfeldt is considered an expert in crisis management, helping communities assess response systems; writing crisis plans; conducting physical site safety audits; and designing school training exercises. She created the community preparedness campaign "Who Depends on You?"

By Jim McKay | Editor

⊕ Can you give an overview of the “Who Depends on You?” campaign?

It's a public education campaign that was really created by a shelter dog, if you will. I'm like everybody else. I'm not as prepared as I should be and I was thinking why that was. I'm at a place in my life that I don't have anyone I'm directly responsible for. I was walking up the driveway one day and this shelter dog that I'd adopted looked up at me [as if to say], "Now wait a minute — you're responsible for me and I depend on you."

That's where the concept came from. The research tells us that it's not about education; people are well educated about what they need to do to be prepared. They don't have the motivation. They have great intentions. So my mantra has been let's move people from intention to action, and to do that we have to look at what motivates people. What motivates people are responsibility, accountability and peer pressure, and I think back to when H1N1 was sweeping the country and everybody was washing their hands. That's because the message was right there and everywhere you turned, whether it was on a billboard or on the side of a bus or on TV, and along with that was peer pressure. "If I don't do it I might put somebody I care about at risk." It reinforced for me what we were doing with Who Depends on You?

I have not found anything that I cannot wrap Who Depends on You? around. If I'm talking to a business, it's their customers, vendors, employees. We can wrap the campaign around young families, that's just a given. If you have children or elderly parents and they're looking to you, let's make sure we'll be able to be there for them.

One of the most successful target groups that hear the message is pet owners. They will jump at being prepared because they have this incredible responsibility to whatever their Fluffy is. We've done some research and found there are more people who have preparedness plans and kits for their animals than there are people who have them for their families. Part of that is we've done a good job of marketing that.

⊕ You hear a lot about getting a kit, but preparedness is much more than that isn't it?

It's not about a kit, it's about a mindset about not wanting to be inconvenienced in

some ways because when the power is out we are inconvenienced. For the first hour or so it's fun and we are camping, but after that it's no longer fun if we can't get information or power up something that we're dependent on or our cellphones go dead and we don't have a way to charge them. It's a mindset of preparedness, of being ready for anything.

The research that we did also found that rural areas were much more prepared than our city dwellers. They confront it all the time. The power goes out more often in rural areas. There might be something that happens with the water supply; you might have to depend on neighbors or yourself because if you're truly rural you might have a 20- or 30-minute response time to get basic medical or law enforcement. It's different for those of us who live within a city limit or close to it where we have great government infrastructure — the response time to my house is three to five minutes. So why do I need to prepare? I'm just going to dial 911, and somebody is going to come and fix my problem.

We [respond] well on a good day, but it's the bad day we need to prepare for. When I'm out there doing public education, I talk about the difference between an emergency and a disaster. An emergency is bigger than I am, I can't take care of it and I dial 911; a disaster is I need help and I dial 911 and maybe the phone's not even working, or the roads are impassable.

⊕ Does preparedness have to start locally? How does it begin?

You start it with conversations. It's supported locally, and it's supported by government or the official voice like FEMA, the Department of Homeland Security or a county or state. But I think truly the message comes on a much more personal level. I'm not sure the brochures that we hand out really get people to change and to go from intention to action. It's more personal relationships, talking to somebody at a safety fair or at work. It's having kids bring it home from school because the educators talked about it and have developed that relationship with that student and that student comes home and talks about it.

⊕ Can we scare people into it?

I don't think so. I think we can scare people into being terrified and paralyzed. We have

to get their attention sometimes and if you and I are neighbors and I tell you my experience, which was a frightening one, you may say, "What did we learn that may be a lesson for my family?" But I don't think government can scare people into it. We go at it the wrong way. We need to tell them what works.

I'm seeing some local campaigns and public service announcements that really try to personalize that message. I'm seeing fewer government entities saying you need to have extra water, etc. We're going away from that and the messages are becoming more personalized.

It's improving but I don't think everyone can be prepared. Because if we're prepared and we're functional in that emergency then it's just a day-to-day operation. Chaos and confusion are ingredients of a disaster. You can't have a disaster without chaos and confusion, that's just an integral part. We can be better prepared but it will never be business as usual. We will always be out of step because physiologically and psychologically we don't react as quickly as that disaster comes to us. We're still in shock or denial, and the disaster is there and has turned our world upside-down.

⊕ You mentioned kids. Are we getting to them early enough?

We have a long way to go with that. We sometimes look for easy solutions. It has to be outside of a classroom because of the incredible pressures that they're under anyway with learning and testing and school safety. If we add another curriculum, we're fighting an uphill battle.

There are other organizations. Preparedness is part of the Girl Scout experience, the Lego League has partnered with IAEM and emergency managers across the country, and youth activities — Boys and Girls Clubs, YMCA. There are probably thousands of activities out there that would teach kids emergency preparedness.

⊕ You mention school safety and we're seeing training for active shooter situations. Can you address that?

That's been my passion. I wrote the first book on school crisis response [*School Crisis Response Teams: Lessening the Aftermath*] in 1993. Preparedness is needed on a systemic

Schoenfeldt says preparedness is more about a mindset than having an emergency kit.

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level and a personal level. On a systemic level, I have shied away from focusing on an active shooter for a variety of reasons. If you look at an incident that's happened on a school campus that involved an active shooter, the challenges to the school system are accounting for everybody; knowing who's involved; who's injured; who's hiding; who didn't come to school that day. The major challenges in a school shooting incident are accountability and communicating with everybody and that means students, staff and first responders.

Do we have accountability; do we leave or stay; partnering with those who come to help and connecting families. Those are the issues. They are the same with an industrial explosion or a collapsed roof in a wind storm. It's all-hazards.

We've got system preparedness but educators and the staff at schools need to be personally prepared for disasters, and that's not an emphasis I see as much as I would like. The principal, the teacher, bus driver, counselor — they need that

same family preparedness plan whether it's an earthquake or a major storm. You need to have that security that says if I'm at school and the tornado sirens go off I know my elderly mom is going to be OK because we've set up those systems and I've talked to the care facility where she is and I know their plan. I know my children, who attend another school, are going to be well taken care of. If schools aren't open, people aren't getting back to work and the whole economic engine gets disrupted.

• Can you talk about integrating critical incident stress management into training drills?

It's a key element because the psychological scars and impacts are sometimes far more severe than the physical. The concept of it is trying to provide a safe place for people to make sense of the senseless. You can use whatever model to do that and there are several out there. Emotional impact is truly going to define whether we recover. After Sandy Hook they created what they

hoped was a similar image of the elementary school but it was at a neighbor school. It was painted to look like Sandy Hook; it was a recreation of the safe place that Sandy Hook had been. The old school was single-story but the new school was two-story. Some kids were diving under their desks on the first floor every time they heard a startling noise from the floor above. That to me is a clear indicator that we need to support people. It's not a surprise.

Another story I heard was a teacher who stopped in the parking lot to call a friend the morning before she went into the new Sandy Hook to face her students. She said to her friend she didn't sleep the night before and had horrible nightmares and needed a friendly voice. Those are some of the things that are clear indicators that critical incident stress management in a variety of forms is needed.

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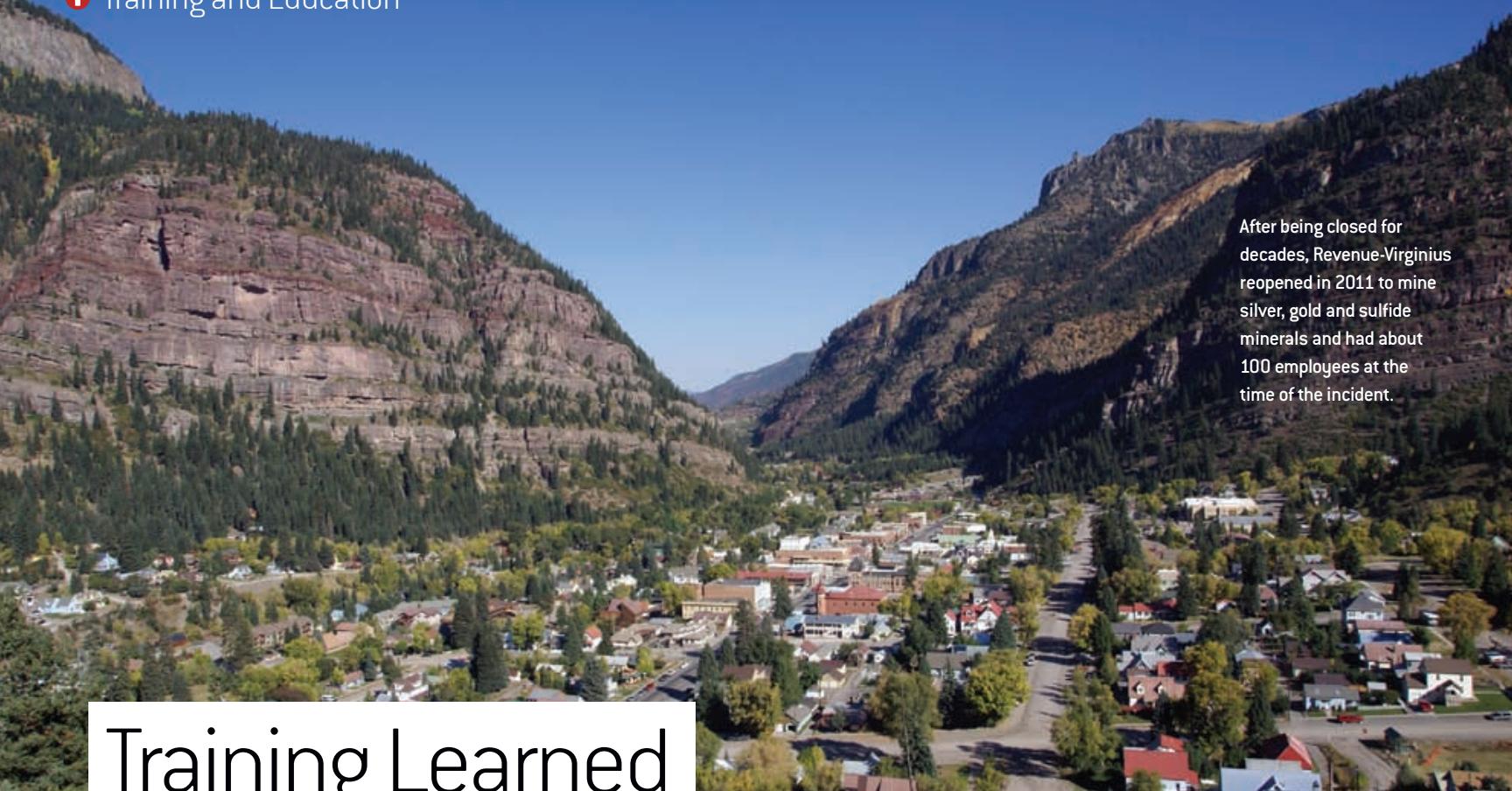
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After being closed for decades, Revenue-Virginus reopened in 2011 to mine silver, gold and sulfide minerals and had about 100 employees at the time of the incident.

Training Learned and Applied

After a tragic mine accident, a coordinated response saves lives thanks to training just the day before.

By Jessica Hughes | Contributing Writer

On the morning of Nov. 16, 2013, rural Ouray County, Colo., emergency responders were called to help miners in a nearby mine. Two were unconscious and 20 were suffering from oxygen deficiency. The two miners tragically died of carbon-monoxide poisoning, but a swift response got the other 20 to safety in a multiagency and regional effort.

The timing was uncanny. The coordinated response that ensued was practiced in a Mass Casualty Incident Command System (MCICS) training just the day prior to the incident, when those same responders were educated using an active shooter model. The training was applied to the mine incident in a structure that can be generalized to almost any mass casualty incident.

At the Revenue-Virginus mine, the county established a transportation unit leader and

group for the first time to accurately track who was coming and going during the emergency.

In total, 30 responders navigated a snowy, narrow terrain to reach miners exposed to high levels of toxic carbon monoxide gases. The transportation leader and group helped especially to track and triage the miners and ensure quick treatment at three regional hospitals.

If not for the training, said Kim Mitchell, Ouray County chief paramedic, the miners who needed help would have likely left the scene without being accounted for or treated because the scene would not have been controlled. All miners exposed to carbon monoxide gases were sent to be evaluated by physicians.

Emergency responders applied the staging concepts they learned from the training to set up an area for resources to converge and to act

as a casualty collection site, about five miles down the steep dirt road. Ambulance, fire and extraction crews waited there until needed. Responders also set up a mechanized shuttle using mine vehicles to taxi miners to the area.

This is a change from responders' usual reaction to rush to the scene when a mass casualty incident happens, potentially choking up the area.

Effective Response

Mitchell sought out the MCICS training with assistance from the Western Regional Emergency Medical and Trauma Advisory Council in Colorado, which supports the delivery of emergency medical and trauma care. About 75 participants from Ouray County and the surrounding counties of Hinsdale and Montrose as well as the cities of Ridgway and Telluride attended.

The training teaches the components of ICS, which standardizes response, roles and communication under one system. The MCICS training also helps responders to compartmentalize a mass casualty incident into chunks that are easier to deal with than thinking about the whole incident at once, according to John Putt, president and partner of the Operational Consulting Group, which put on the training prior to the incident.

The two-day course is given by instructors representing the various disciplines, working right alongside responders. The last day is all hands-on, scenario-based training. The training focuses on the pre-hospital side, ensuring that law enforcement, fire and EMS collaborate in a structured and standardized way, akin to the well honed hospital side, said Kelly Victory, chief medical officer and partner of Operational Consulting Group. This is doable, she said, because 80 percent of what needs to be done during any mass casualty event is the same.

"All these events are relatively similar, and they need to be structured in such a way that people do it as rote as they do the ABCs," Victory said.

Active shooter mass casualty training is a shift in thinking because it asks EMS and fire to go with law enforcement into an active scene to address casualties immediately. EMTs have been historically trained to wait until a scene is safe before entering.

The emergency management community has learned during shootings that if medical responders wait, it might be too late, according to Putt. "Ultimately, success in the field is dependent on how fast you get patients to the surgeon."

Operational Consulting Group has offered these comprehensive trainings throughout Colorado in cooperation with the Hospital Preparedness Program in the state's Department of Public Health and Environment, with additional grant funding from the U.S. Department of Health and Human Services. Going forward, the group is interested in taking the trainings out of state, seeing a need for other agencies to learn from the structured, hands-on training.

Though MCICS covers high-level concepts by PowerPoint, the critical piece is practicing the response with all the stakeholders at the same time to develop muscle memory, Victory said. "That is why I believe Ouray had the

outcome it did in dealing with the mine incident. They had practiced it; they had done it."

There was also a 100 percent participation rate in the training from county and city law enforcement, fire departments and EMS, Mitchell said. "It brought all the different players together."

Glenn Boyd, Ouray County emergency manager, said that was significant because the county's entire fire department and all but three EMTs are volunteers. And many of them had never experienced in-depth, hands-on training before.

And that's the goal of the training, Putt said: To get people confident in dealing with mass casualty incidents but also confident in responding to them while working together.

A Unified Effort

An essential thing the county learned from the training was to call for help early.

As it happened, Mitchell was the medic on call when she got pages around 7:20 a.m. that told her at least one person was in the mine unconscious, but possibly as many as six. Mitchell responded to the messages along with law enforcement and the fire department, and also called on mine rescue teams. Once at the mine, which is located about a half hour outside of town, Mitchell learned that two miners were more than a mile inside.

In coordinating the safety of the miners, emergency responders worked together with law enforcement, much like how the active shooter training required collaboration so that fire and EMS would have protective detail during a shooting.

In applying the training, the sheriff's office worked with responders to protect the area from miners attempting to return to the area for rescue attempts, according to Mitchell. "Eventually we just had to seal it off because very distraught miners were trying to go down."

In addition to the sheriff's office assuming incident command at the scene, agencies established a unified effort at the emergency operations center in town to direct media, family and resource collection. This unified effort is something the county has attempted before, but this time it worked, Boyd said.

Because all of Ouray's resources were focused on the mine site, the county called on its mutual aid partner, Montrose County, to cover fire and EMS calls.

Montrose covered three calls for the county, including an avalanche and an auto-pedestrian fatality, Putt said. The regional effort also included emergency resources from Ridgway and the counties of San Juan, San Miguel, Gunnison and Delta.

The rescue team drove 19 miners and flew one by helicopter via TriState CareFlight to three hospitals, with the farthest hospital located more than two hours away. Four miners were treated overnight.

Meanwhile, the rescue effort waited at the scene for two four-person mine rescue teams to drive several hours to retrieve the individuals who were still inside. Mine rescuers are the only responders who can rescue people inside mines, following technical rules established by the Mine Safety and Health Administration.

Though the administration has not released its conclusive report as to what happened that day, Ouray County Sheriff Dominic Mattivi ruled out a mine explosion or collapse as the cause of the incident. A preliminary report notes that the men were found in the area where mine operations had detonated explosives the day before, potentially leaving behind carbon monoxide as a byproduct.

'Better Learning'

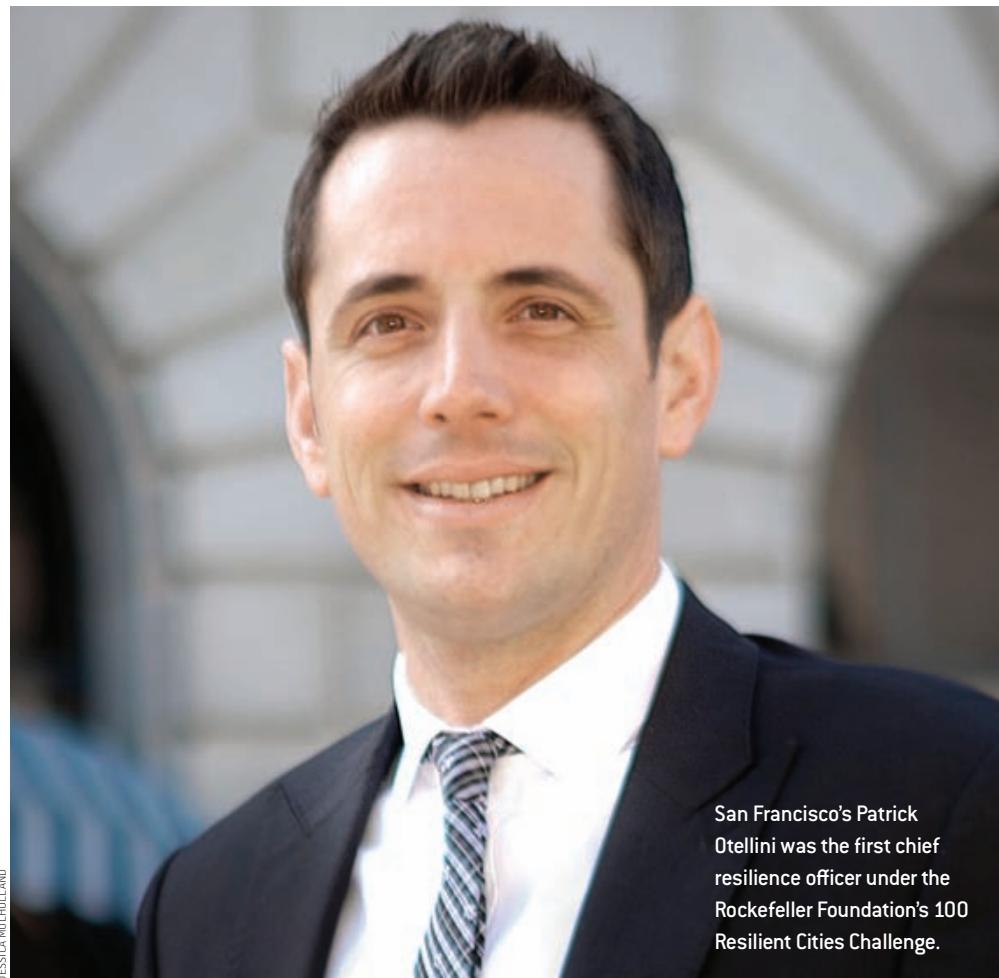
Even in the face of loss, an effective response can help a community bounce back because emergency crews know their response was as effective as possible.

Not only did the training help bolster resilience, but the mine incident itself also reinforced the lessons Ouray and other responders learned from the MCICS training simply because the community used what it learned during the response.

"You can learn a lot from having a big incident like that and failing," Mitchell said. "But if you can practice and then have mostly success, it's better learning."

And the lessons are sticking. Before the Fourth of July weekend — the community's busiest holiday — sheriffs along with police, fire and EMS chiefs gathered to make an incident action plan to anticipate resources and situations. Boyd said that would have never happened even five years ago. ☀

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San Francisco's Patrick Otellini was the first chief resilience officer under the Rockefeller Foundation's 100 Resilient Cities Challenge.

The Resiliency Challenge

Chief resilience officers begin to guide cities toward a future that's better prepared for physical, social and economic challenges.

By Jim McKay | Editor

Resiliency is a difficult term to pin down. Patrick Otellini, San Francisco's chief resilience officer, the first under the Rockefeller Foundation's 100 Resilient Cities Challenge, in reflecting on the foundation's message, defines it this way: "It's how a city continues to thrive and bounce back from acute shocks and chronic stresses."

Those shocks and stresses come from a multitude of factors and situations, including hazards such as earthquakes, tornadoes, hurricanes and floods to poverty, terrorism and violence. By sponsoring a two-year grant for a

chief resilience office, the Rockefeller Foundation is offering the chosen cities an opportunity to help mitigate those shocks and stresses. Ten of the 32 cities named so far are in the U.S.

In San Francisco, seismic activity is, of course, the No. 1 stressor, while in nearby Oakland, violence and social inequity are major issues, along with earthquakes. East Coast cities like Norfolk, Va., and New York City are vulnerable to flooding from tropical storms, while El Paso, Texas, is susceptible to drought and resource scarcity. Those are examples of the challenges the new chief

resilience officers will be wrangling with as they try to improve their city's resilience.

The Rockefeller Foundation received nearly 400 applications from cities across six continents for the program, which will provide the resources for the resilience officer and technical support for two years.

Otellini was hired this spring, the first among the 10 chosen U.S. cities. He was a natural fit, having served Mayor Ed Lee as director of earthquake safety since 2012, and prior to that having worked on the city's Soft Story Task Force, an effort to retrofit vulnerable San Francisco buildings.

He said the new position, although a boon to the city, is a step in the direction he was already traveling. But it's not just retrofitting vulnerable buildings so they don't fall down in an earthquake. There are social and economic components to it and that's part of developing a resilient city.

"It's not about the government coming in and telling a private property owner, 'Hey, you need to do this retrofit; because that in and of itself is not a compelling enough reason," Otellini said. But, he said, consider that shelter capacity in San Francisco is 60,000 residents and if the city were to lose just the structurally weak buildings, those shelters would be full. If those 60,000 people could shelter in place, it would make recovery and a return to normalcy much faster.

Economically there are 2,300 small businesses that employ 7,000 people in those buildings, and those are the kinds of businesses that may not have continuity insurance or a viable way to recover if they lost operations for a month.

Those soft story buildings are the "low-hanging fruit" though. What Otellini hopes will come from this campaign is a comprehensive long-term recovery plan. "We have great response plans here but we are not prepared yet for a major recovery that takes two or three years and that's where I think it's a real advantage for San Francisco to be a part of this network."

It's not just about earthquakes but also overall resilience, and that's where being a part of a network is beneficial. "A big cornerstone of our strategy is sea-level rise," Otellini said. "It's going to be a major impact to the Bay Area considering we have an eastern seawall that's not ready to deal with what we anticipate sea-level rise will be in the next 50 or 100 years."

Q&A: True Mobility for Law Enforcement: Do You Have It?

Few agencies can benefit from mobility like law enforcement. Equipping officers with mobile devices not only improves efficiency and lowers costs, it also has the potential to save lives. Many law enforcement agencies have devices in patrol cars, but oftentimes these devices aren't providing true mobility for officers and are limiting potential benefits. We talked with **Peter Poulin, vice president of marketing for Motion Computing**, about trends in public safety and how true mobility is critical to ensuring officer safety, increasing efficiency and assuring accuracy.



Q: From a mobile computing perspective, what are the trends you are seeing in public safety?

PETER POULIN: We are seeing a new generation of officers that have a different set of computing expectations. This group of public safety personnel grew up with touch screen technology — whether that be ATMs, smartphones or a myriad of other devices. This is a reality law enforcement agencies need to consider when they are thinking about recruiting staff and implementing new technologies. At the same time, agencies also need to ensure they are retaining experienced officers. For them, mobile devices with keyboard peripherals are a great option.

Another important trend in public safety is the Internet of Things. The proliferation of IP-enabled devices in and around

the officer's vehicle and any wearable technology the officer might have is driving a need for alternative connectivity solutions that future-proof the organization.

Q: What is the difference between mobility and portability and why is this important to public safety?

PETER POULIN: The distinction between the two is crucial because some people view portable and mobile as synonyms, which limits their ability to see the value of a truly mobile device.

Typically, portable devices are used in an enclosed environment and only while sitting. They are generally awkward to use while standing upright. Mobile devices provide everything that portable devices do, but they also add important benefits, like allowing an officer to stand up outside and/or walk around the scene of an incident. For example, in a non-threatening situation, a mobile device enables the officer to document an accident and capture on-screen witness accounts. Additionally, when the officer needs that information in court appearances and other forums, he or she can easily retrieve and share it.

Q: What types of devices provide true mobility for public safety officers?

PETER POULIN: Tablets bridge the gap between portability and mobility and expand the value a device can bring to an officer. However, the tablet still has to have many of the characteristics of more traditional portable devices. It has to be rugged and resistant to water, and law enforcement officers should be able to view the screen outside. The device should have long battery life, but it should also be

light enough that it is easy for an officer to handle comfortably for long periods of time. Excellent wireless performance is also crucial.

Diverse and flexible connectivity solutions — like the patrol car as a hotspot — also enable mobility. Officers are no longer constrained by an antenna that is connected to only one device; law enforcement can now install mobile gateways in police vehicles. This allows an officer to connect all of his or her IP devices through a single gateway and a single cellular contract, which is also more cost efficient.

Q: How can true mobility promote efficiency, accuracy and safety for officers?

PETER POULIN: With a truly mobile device, an officer can use the same computing device in the vehicle, in the field, in the precinct and even at home — there is no need for multiple devices. Additionally, more sophisticated in-vehicle solutions are increasing officer safety and there are now dash mounts that consume less space in an officer's vehicle and don't require disabling the passenger-side airbag.

Automated data capture at the point of engagement is also a huge benefit of mobility. Officers are able to capture data in real time. Handwritten notes don't need to be re-keyed into a device and video evidence and witness testimony can be recorded at the point of engagement, which is often outside of the vehicle.

Documentation cameras with more sophisticated software for annotation and measurements, time and GPS location stamping can all come to the scene. These mobile workflows really aren't possible without truly mobile devices.

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That's where collaboration with other chief resilience officers can come into play. "I'm not an expert in sea-level rise but it's my job and duty to be a conduit to the right people," he said. "What's helpful is the Rockefeller Foundation vetting these people at a very high level so when we're talking to these platform people, they're offering us something as part of a network."

While each officer will have different challenges, they will collaborate on how each goes about the job. "We're all thinking the same thing but we're seeing how we apply it locally," Otellini said.

And in a big city like San Francisco, where government can sometimes work in silos, part of the job will be to reach across those silos to make things happen. Otellini reports to Mayor Lee, which will let him go directly to people at the department head level rather than jump through all the "strata" if he were based out of another department.

Working with the private sector will be paramount to success and that means

speaking to companies on their own terms, including business continuity and conveying to them that participating in a resilience plan could mean saving their business.

"They'll ask, 'Why should I do that?' I'll say, 'What does it cost to be out of business for a day or a week or a month?'" said Otellini. "Even if you look at one day, that cost is usually offset, it's twice what it would be to do a seismic evaluation of the building."

That's been a successful approach to getting businesses to think about getting back to normal after an earthquake, Otellini said. "You can show them the math — that every dollar spent now saves four after a disaster."

Economic and Neighborhood Resilience

On the other coast, Norfolk, Va., hired Christine Morris for the same position in late June. Norfolk's attraction is the water but that's also the threat: the potential for catastrophic flooding from tropical storms. The threats differ from San Francisco's, but the framework,

goals and missions are similar: empower the community so residents aren't helpless when shocks and stresses occur.

During her first four months on the job, Morris will be identifying community assets related to coastal, economic and neighborhood resilience.

Norfolk thrives, in large part, because of its relationship with water, but that must be managed to mitigate catastrophic flooding. Managing it doesn't mean finding a way to disperse the water, but living with it. The idea of resilience is to manage water in a way that it mitigates the expected increase in sea rise and at the same time maximizes access and enjoyment of the resource.

One aspect of creating resilience is dealing with poverty. That doesn't directly relate to tropical storms or flooding, but poverty can reduce a community's resilience to disaster. "Resilience as defined by the Rockefeller Foundation is the 'capacity of individuals and communities and systems to survive, adapt and grow in the face of stress and shocks and even transform themselves when conditions require it,'" Morris said. Poverty restricts those capabilities, so job options, living wages and financial resources all affect people's ability to adapt to a changing environment.

"You may say that because you can keep the electricity on, you are resilient, but if your citizens can't pay their bills, access services and contribute to the economic fabric of the community, you aren't going to be able to weather the storms coming your way," she said.

Norfolk's resilience method will be a whole community one because, as Morris said, sometimes each individual neighborhood knows better than a city official what makes that community thrive. For the campaign to be successful, city leaders must know and understand their communities and what changes residents see as best to make it more resilient. Morris said that's the whole point of the Rockefeller framework: to understand the community, assess its strengths and weaknesses, and then address each appropriately.

Work has already been done in Norfolk to spot community assets and strengths that can be accessed during a disaster. Morris listed as potential assets the Navy, universities, hospitals and other organizations.

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is going to reveal that we have even more assets than we realize and that we can integrate them into the plan by revealing those assets and bringing them onboard as partners," she said.

For instance, generators located across the city could be used to temporarily maintain the power grid and facilitate critical functionality in a neighborhood. "If we need refrigeration for medicine or food at the neighborhood level, we have to figure out where those generators are, where the power is likely to be on and how we can make sure people have access to it."

The definition of resilience has been outlined by the Rockefeller Foundation, but Morris said it's important to reach out to the community and get its definition. "We really have to go to our stakeholders and say, 'What does this mean to you and how are we going to achieve it together?'"

The long-term goal is to transform a well managed government into a well managed and resilient one going forward 20, 50, even

Hardy American Cities

Ten U.S. cities are included in the 32 chosen so far by the Rockefeller Foundation for the 100 Resilient Cities Challenge.

CITY	CHALLENGES
Berkeley, Calif.	Earthquake, Fire, Flood
Boulder, Colo.	Fire, Flood
El Paso, Texas	Drought, Flood, Resource Scarcity
Jacksonville, Fla.	Flood, Tropical Storm
Los Angeles	Drought, Earthquake
New Orleans	Tropical Storm
New York City	Flood, Tropical Storm
Norfolk, Va.	Flood, Tropical Storm
Oakland, Calif.	Earthquake, Fire, Social Inequity, Violence
San Francisco	Earthquake

100 years. To do that, Morris said, everyone has to feel as if they are a stakeholder.

"My job is to make sure that resilience is a part of every director, every line worker, every resident's thinking. I've got two years plus to really begin the conversation and say, 'This is a really good way to look at problems,

and it's worthwhile to think we can make our systems as strong as possible not only in case we have a shock but so this framework can help us thrive and plan for the future." 

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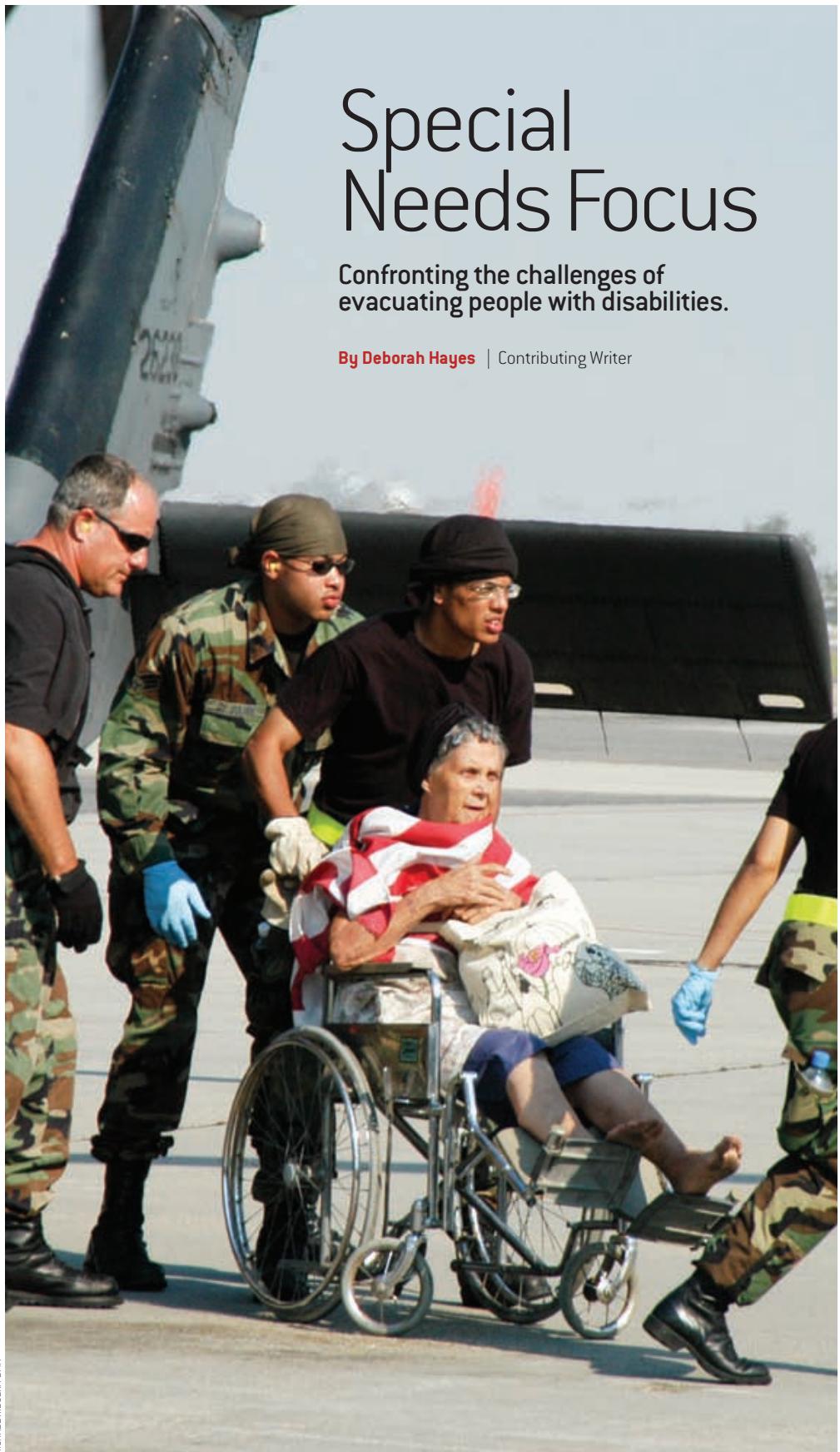
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Special Needs Focus

Confronting the challenges of evacuating people with disabilities.

By Deborah Hayes | Contributing Writer

In 2013, the United Nations Secretary-General's Special Representative for Disaster Risk Reduction, Margareta Wahlström, noted that people with disabilities experience a disproportionately high level of disaster-related injury and death because their needs are neglected by the official planning process in most situations.

The UN conducted a survey of people with disabilities who had survived disasters around the world. Few respondents were aware of any disaster management plans in their communities, and fewer had participated in any planning processes, although half of the respondents expressed a desire to do so.

According to survey respondents, just 20 percent said they could evacuate "immediately without difficulty" in the event of a sudden disaster. If "sufficient" time were available, the percentage of those who could evacuate without difficulty nearly doubled (to 38 percent), underscoring the need for effective and inclusive early warning systems.

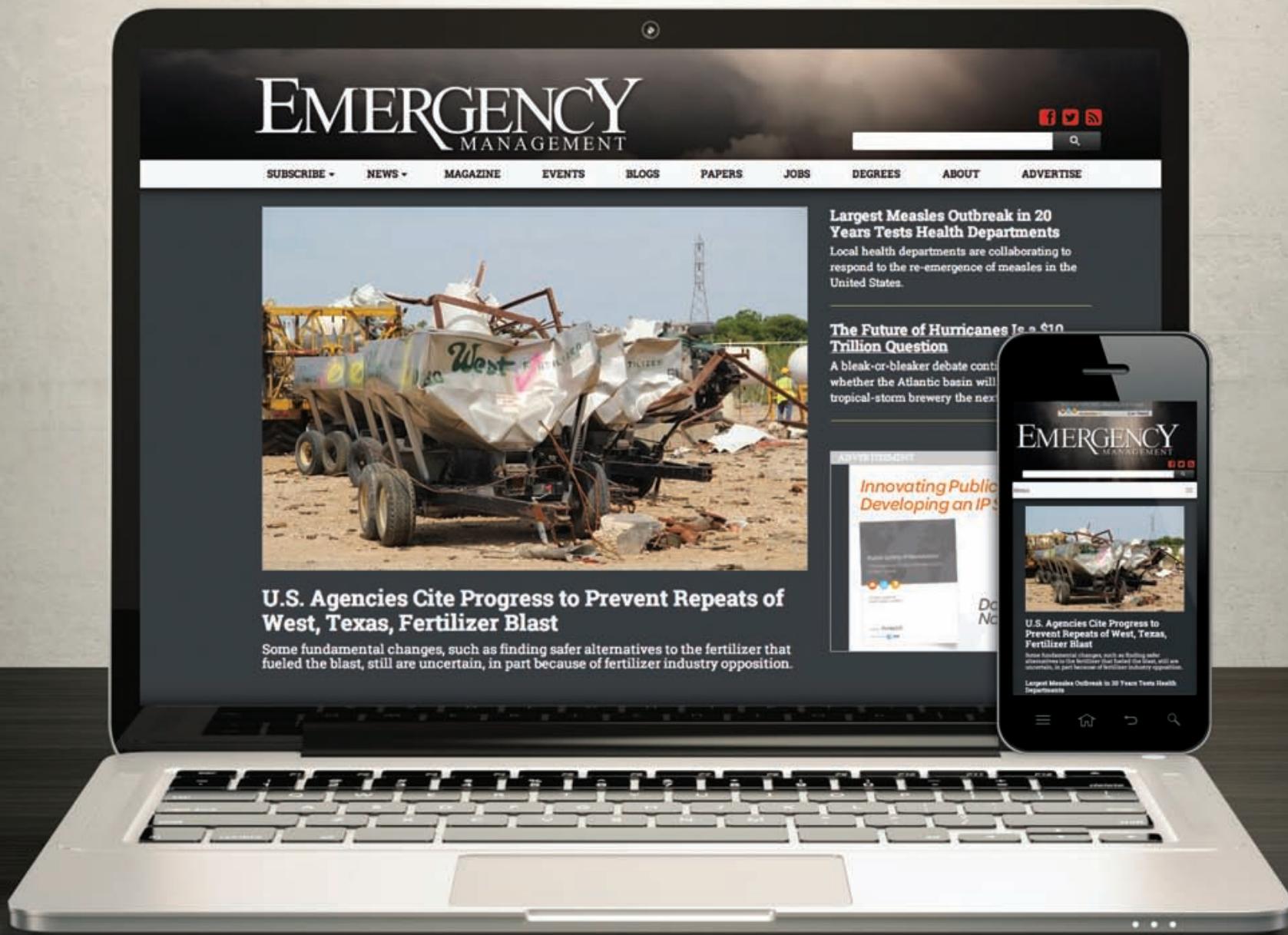
There is no reason to believe that the situation in the U.S. is substantially different than the one highlighted in the UN report. According to a report issued by the U.S. Census Bureau in 2012, about 56.7 million people, or approximately 19 percent of the population, had a disability in 2010. Of those individuals who reported having a disability:

- About 7.6 million people experienced difficulty hearing, including 1.1 million whose difficulty was severe. About 5.6 million used a hearing aid.
- Roughly 30.6 million had difficulty walking or climbing stairs, or used a wheelchair, cane, crutches or walker.
- About 19.9 million people had difficulty lifting and grasping. This includes, for instance, trouble lifting an object like a bag of groceries or grasping a glass or pencil.

This means that in any disaster planned for by emergency management personnel, one in five people encountered will have a disability of some type. Studies after Hurricane Katrina found that approximately one-third of those who did not leave their homes during the disaster had a disability. In fact, when survivors were interviewed after the storm, the two primary reasons given for not evacuating were either the person had a disability or was a family member of someone with a disability and stayed behind to act as a caretaker. One of the lessons

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Disaster Response

learned from Hurricane Katrina and other recent disasters is that the special needs of people with disabilities must be integrated into all aspects of emergency management.

So how does an emergency manager plan for the evacuation needs of disabled persons in the community?

-  **Become familiar with planning tools that have already been developed by reputable organizations, such as the National Organization on Disability.**

The organization's guide, titled *Functional Needs of People with Disabilities: A Guide for Emergency Managers, Planners and Responders*, is a step-by-step how-to document on all aspects of planning for emergency managers and the people in their communities who have disabilities.

-  **Include representation by the disabled community throughout the planning process.**



Evacuation planning should include representation by community members who are disabled. This process will help establish a strong working relationship with the community before a disaster occurs. This involvement can also assist the emergency manager in identifying organizations or resources within the community that are already used by individuals with disabilities. These organiza-

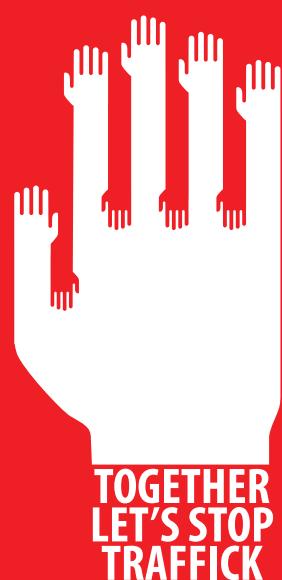
tions can in turn disseminate information that will aid people with disabilities to assume a role in determining their own needs and therefore take on some of the planning responsibility for their needs.

-  **Identify the needs of the community.**

Working with the disabled community in the planning process also allows the emergency manager to identify areas of need,

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particularly in the two most challenging aspects of evacuation: communication and transportation. Community organizations or agencies that represent the varied needs of the disabled population can assist in getting access to information about people with disabilities and where they live. This information can aid the emergency manager in getting a clearer picture of this segment of the community.

⊕ Self-identification and preparation.

People with disabilities should have a means by which they can self-identify. Some methods have been shown to be successful, including: registration with the local emergency management department; pre-made emergency go bags or the provision of information about specific emergency information readily available for the community; and an emergency notification system for people who might need assistance to be informed promptly in the event of a disaster.

⊕ Develop a list of resources to assist people with disabilities.

This list must be maintained and updated to reflect information and resources as they exist. Additionally, this list must be made available to organizations and individual members of the community who have disabilities.

⊕ Train first responders in the needs of persons with disabilities.

Many first responders aren't familiar with the specific needs of disabled people. Providing training to first responders using community members will heighten awareness and allow the responders to find out firsthand what needs might arise in the event of a disaster.

⊕ Build strong relationships with government agencies that work with disabled people.

Emergency managers should develop relationships with government entities that regularly work with people who have

disabilities. This will allow learning in both directions and help pinpoint potential problems before they occur. Such organizations should also be involved in the planning and information dissemination process as they are usually aware of community resources that might be unknown to the emergency manager.

With careful planning incorporating input from a broad spectrum of the community, emergency managers can make better decisions. These decisions will lead to a smoother evacuation, as well as fewer injuries and deaths. **⊕**

Deborah Hayes has worked in emergency management and disaster response for more than 10 years for various organizations, including the American Red Cross, FEMA and the International Federation of Red Cross and Red Crescent Societies. She completed her Ph.D. in architecture from Georgia Tech examining building safety issues.

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By Eric Holdeman

More Diversity Needed

Take a look around when you attend the next large emergency management conference. What is the makeup of the audience? What are the ages, sex and ethnic backgrounds of the people in the room? How diverse is that audience?

If it is anything like my region of the world, emergency managers are not that diverse of a group.

One of the factors that is changing things, and rapidly, is the retirement of the baby boomer generation, which is opening up more positions for the many young people who have graduated with emergency management degrees.

WE ARE LIMITING OUR EFFECTIVENESS BY NOT HAVING A MORE DIVERSE CADRE OF EMERGENCY MANAGERS.

Some progress has been made in the last 25 years with many more women joining the ranks of emergency management professionals, yet we lag way behind in being representative of the population as a whole.

We are limiting our effectiveness by not having a more diverse cadre of emergency managers at all levels of government and the private sector. It won't be long before Caucasians are no longer a majority of our population, yet the composition of our current workforce is dominated by whites.

I asked the pastor of a multiethnic church how he achieved having a diverse parish. He said, "When the people look up to the podium or to the pictures of staff on the wall, they must see people who look like them." If we are going to have a greater level of understanding of cultural differences, increased ability to be effective and a greater impact on our capability to relate to our constituents, it will require that when they see emergency managers, some look like them.

I spoke recently to a senior fire service chief who is African-American. He agreed that for new people to get into the field, they need to see it as a potential career path. If they don't see people of color serving as emergency managers, they don't relate to the position.

To resolve this Catch-22 of not having minorities serving in emergency management and therefore no one from those populations pursuing the career field will require action.

We all have to become more deliberate about recruiting people of color to become emergency managers. To achieve this will require us to first have more interactions within these communities. We must be on the lookout for outstanding individuals who articulate the desire to serve others. Just talking about the field and the different career paths into our profession would be helpful.

But why not go beyond just talking and move toward doing? What if you offered to help mentor an individual along a path toward an emergency management career? We, after all, have what some in the general public would call a sexy profession. Generally I don't think people think of us as paper pushers and bureaucrats, which is what we are most of the time.

Let me be explicit in stating that I am not talking about some sort of quota system where you take the ethnic percentage of a community and then fill slots in your organization with the number of people who match the percentage. To hire just anyone is the wrong answer.

I've only been successful in a very small way in accomplishing the above task myself. But if we all work at it, our numbers and success rates will go up. Here is an opportunity for you to assume a leadership role in changing the dynamics of our profession for a long time to come.

All of the above requires us to be more selfless in our thinking and actions. We can do it. Let's do it. +



ERIC HOLDEMAN IS THE FORMER DIRECTOR OF THE KING COUNTY, WASH., OFFICE OF EMERGENCY MANAGEMENT. HIS BLOG IS LOCATED AT WWW.DISASTER-ZONE.COM.

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Mass Casualty Kits

Chinook Medical Gear introduced a new line of mass casualty-active shooter kits. Designed for schools, offices and public buildings, these new kits empower the general public and first responders with supplies for performing hemorrhage control similar to what is administered by soldiers on the battlefield.

Victims of mass casualty-active shooter events often die unnecessarily between the time of wounding and when emergency medical services reach them. To improve victim survival, the Hartford Consensus Conference II advocates educating and equipping the public to be first care providers during these incidents. The hope is that uninjured bystanders or minimally injured victims already on the scene can begin lifesaving treatment if provided with proper knowledge and adequate medical supplies for trauma.

www.chinookmed.com



MOBILE GUIDE

Guest Communications Corp. recently announced the launch of its first mobile application as a companion to its printed, quick-reference products, the *Guide to Emergency Preparedness* and the *Guide to Field Operations*. The mobile app, My-EOP, allows users access to their organizations' custom emergency operations plans through their mobile devices. The application was designed to provide organizations with the ability to more widely share emergency operations plans with staff, team members and emergency responders through their mobile devices. It's already being used in hospitals, schools and universities as well as federal, state, county and municipal agencies. Emergency responders have also begun to implement My-EOP along with other industries, such as energy production. Common uses include incident and emergency response, radio interoperability and tactical communications. www.gcckc.com

SITUATIONAL AWARENESS

SCRA's Alastar Software was implemented at the 13th Annual Bonnaroo Music and Arts Festival. The event, held in Manchester, Tenn., attracted more than 100,000 people with 140 bands and comedic acts performing on 14 stages. Alastar augmented the efforts of the Coffee County Sheriff's Office, state and local emergency management agencies and local police departments by integrating calls for service, regional transportation cameras, on-site live camera feeds, social media alerts and vehicle locating devices. Officers used the Alastar mobile tracking application on their phones to assist in coordinating responses.

Alastar offers wide-area situational awareness information that aims to improve response times, increase coordination and allow organizations to more effectively monitor and protect their communities and large events. www.alastar.com

ON-BOARD VIDEO

The Clark County, Wash., Public Transit Benefit Area Authority (C-TRAN) has selected the RoadRunner on-board video surveillance system and Vehicle Information Management Software from Apollo Video Technology for its fleet of fixed-route and paratransit vehicles. The system, complete with digital video recorders and video management capabilities, will ensure C-TRAN officials have access to reliable, high-quality video footage for monitoring and responding to events taking place on and around its vehicles.

www.apollovideotechnology.com



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By Brian C. Bannon

Exercises in Futility

Exercises are conducted to identify strengths and weaknesses; assess gaps and shortfalls in plans, policies and procedures; clarify roles and responsibilities among different entities; improve interagency coordination and communications; and identify needed resources and opportunities for improvement.

Do exercises achieve these goals? Probably not. Not because they can't, but because the organizations planning and executing these exercises don't use them as real tests. These organizations

are engaging in "exercises in futility." But organizations may be ready for a new kind of dynamic exercise, based on risk-reward principles.

The goal is to provide a deliverable: the after action report or improvement plan. What if we changed this deliverable to measurable improvement in actual policy, procedure, capability or technical assistance to support performance? This would change the conversation from planning exer-

cises, to exercising plans or at least exercising the concepts in the plans. If there is no plan, consultants could help the organization by using dynamic exercises to develop hypotheses, reveal weakness, uncover strengths, innovate new approaches to problem-solving, and then support planning efforts to capture and implement improvements based on the exercise outcomes.

Why hire a consultant? It's most likely because you don't have the resources, time, proper perspective and/or expertise

within your organization to see issues or opportunities clearly and articulate them in terms of larger policy or doctrine. So why not take advantage of your consultants' perspective and expertise, in real time, and let them influence the outcome of the exercise? The exercise becomes a laboratory to test current approaches and alternatives, in a safe, risk-managed and controlled environment.

In my experience, too many participants talk their problems away during discussion-based exercises, without really understanding the value of critical thinking and analysis of shortcomings — they don't understand the value of failure. Failure is a powerful teacher and motivator. A risk-free exercise, in which failure is not an option, ends up being just another exercise in futility.

We need to move from risk-free, discussion-based exercises to risk-managed, decision-based exercises that give participants freedom to try out new ideas and fail. This would give organizations opportunities to find their failure points, find successful ways to cope with failure and strengthen their plans, policies and operations.

Our nation has made huge investments in exercises in terms of money, time and resources but has little measurable improvement to show for it. In the current budget climate, organizations are likelier than ever to cut exercises because of failure to link with real, demonstrable improvement. Ironically, exercises are more important than ever.

Exercises provide us with risk-managed environments to create the shared understanding necessary to fuel the innovation we need. It's time to stop participating in these exercises in futility and start building a culture of risk-managed planning through a new approach to exercises. 

ORGANIZATIONS
MAY BE READY
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PRINCIPLES.



BRIAN C. BANNON HAS MORE THAN 16 YEARS IN EMERGENCY SERVICES EXPERIENCE AND PROVIDES EMERGENCY MANAGEMENT CONSULTING TO FEDERAL GOVERNMENT CLIENTS AS A SENIOR EMERGENCY PLANNER WITH BOOZ ALLEN HAMILTON.

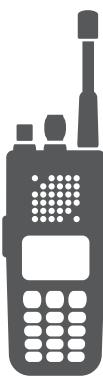
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