

ADDRESSING THE THREAT OF WORSENING NATURAL DISASTERS

HEARING

BEFORE THE

COMMITTEE ON
HOMELAND SECURITY AND
GOVERNMENTAL AFFAIRS
UNITED STATES SENATE
ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

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CONTENTS

Opening statements:	Page
Senator Peters	1
Senator Portman	2
Senator Hassan	16
Senator Rosen	18
Senator Padilla	21
Senator Ossoff	22
Prepared statements:	
Senator Peters	27
Senator Portman	29

WITNESSES

WEDNESDAY, SEPTEMBER 29, 2021

Sima Merick, President, National Emergency Managers Association and Executive Director, Ohio Emergency Management Agency	5
Jerry Hancock, Executive Director, Michigan Stormwater Floodplain Association and Stormwater and Floodplain Programs Coordinator, Ann Arbor, Michigan	6
Jennifer Pipa, Vice President of Disaster Programs, American Red Cross	8
John S. Butler, Second Vice President International Association of Fire Chiefs and Fire Chief, Fairfax County, Virginia	10

ALPHABETICAL LIST OF WITNESSES

Butler, John S.:	
Testimony	10
Prepared statement	55
Hancock, Jerry:	
Testimony	6
Prepared statement	37
Merick, Sima:	
Testimony	5
Prepared statement	31
Pipa, Jennifer:	
Testimony	8
Prepared statement	49

APPENDIX

Responses to post-hearing questions for the Record:	
Ms. Merick	61
Mr. Butler	62

ADDRESSING THE THREAT OF WORSENING NATURAL DISASTERS

WEDNESDAY, SEPTEMBER 29, 2021

U.S. SENATE,
COMMITTEE ON HOMELAND SECURITY
AND GOVERNMENTAL AFFAIRS,
Washington, DC.

The Committee met, pursuant to notice, at 10 a.m., via Webex and in room SD-342, Dirksen Senate Office Building, Hon. Gary Peters, Chairman of the Committee, presiding.

Present: Senators Peters, Hassan, Sinema, Rosen, Padilla, Ossoff, Portman, Johnson, Lankford, Romney, Scott, and Hawley.

OPENING STATEMENT OF CHAIRMAN PETERS¹

Chairman PETERS. The Committee will come to order.

Every September, we observe National Preparedness Month, a critical reminder that planning ahead for a natural disaster can help save lives. Preparedness is becoming more and more important as we continue to see increasingly severe storms and weather events that create life-threatening situations and cause serious damage to our communities. Driven by climate change, these extreme storms, hurricanes, wildfires, and floods, are becoming more frequent, and more destructive every year.

At the same time, our Federal, State, and local emergency responders are also working to address the ongoing public health crisis caused by the Coronavirus Disease 2019 (COVID-19) pandemic. As a result of these compounding circumstances, our disaster response resources, personnel, and volunteers are stretched thin, making emergency response and recovery more challenging and more expensive.

Severe storms, extreme flooding, and devastating wildfires cost our nation billions of dollars every year. But we can strengthen our disaster response efforts, and save taxpayer dollars, by making smart, forward-looking investments in mitigation before a disaster strikes. In fact, studies have shown that every \$1 invested in hazard mitigation or prevention saves an average of \$6 in recovery costs for taxpayers.

As we continue to see worsening natural disasters and the dire consequences they have on our communities we must take swift action to upgrade our infrastructure and ensure our roads, bridges, homes, and businesses, are resilient enough to withstand increasingly severe weather events.

¹ The prepared statement of Senator Peters appear in the Appendix on page 27.

That is why I worked to pass the Safeguarding Tomorrow Through Ongoing Risk Mitigation (STORM) Act, which was signed into law earlier this year, to help provide States and local communities with access to the resources they need to make these critical investments. I was pleased to secure \$500 million in initial funding for the program as part of the Senate-passed bipartisan infrastructure bill, and look forward to the House considering that bill soon.

The STORM Act, and this initial funding, will help kick-start loan programs in every State to help communities begin to reduce their natural disaster risks.

In addition to creating these kinds of new opportunities to help communities prevent widespread damage, we must also ensure our disaster recovery efforts are working effectively. Most importantly, we must have enough personnel and volunteers to assist in disaster recovery efforts. Ranking Member Portman and I introduced bipartisan legislation earlier this year that would help the Federal Emergency Management Agency (FEMA), ensure that we are able to recruit and retain enough Reservists to quickly respond to emergencies by providing important employment protections. I look forward to continuing to advance this bill so that we can help reduce the burden that make it difficult for FEMA to recruit and retain emergency response personnel.

We have also seen firsthand how our disaster recovery resources do not always reach the communities most in need. Whether they are recovering from a hurricane or other severe weather events or seeking resources related to the COVID-19 pandemic response, too many of our most vulnerable communities do not have equal access to this vital assistance. Communities of color and other underserved communities often disproportionately face the consequences of disasters, and our disaster response efforts typically provide slow or inadequate relief to those communities.

Last Congress, I worked on legislation that would begin to strengthen our disaster response for all Americans by creating an office at FEMA that would be focused on ensuring equitable access to disaster assistance, and I look forward to continuing that effort to ensure that no matter when or where a disaster strikes, help will be readily available.

I appreciate our witnesses for joining us here today and look forward to discussing these issues and other efforts that will help strengthen our disaster preparedness and response efforts across the country.

Ranking Member, you are recognized for your opening comments.

OPENING STATEMENT OF SENATOR PORTMAN¹

Senator PORTMAN. Thank you, Mr. Chairman. I thank the witnesses for being here today. We are pleased to have a witness from Ohio with us, who has done a great job in ensuring that we have preparedness in our own State but also has worked with the National Emergency Management Association (NEMA). Ms. Merick, thank you for being here.

This is an important hearing. We have the opportunity today to talk about preparedness to deal with these natural disasters, and

¹The prepared statement of Senator Portman appears in the Appendix on page 29.

let us face it, there are more and more of them. We have seen, over the past couple of years, the most damaging wildfires, droughts, and hurricanes in our recent history. We need to be better prepared, and we need to be sure that FEMA is there to respond effectively.

FEMA is the principle agency that coordinates the Federal response to natural disasters, but just to remind people, we have a decentralized system in this country. FEMA does not provide the boots on the ground, for the most part. It is local responders who are first on the scene when disasters strike. This is reflected by the way FEMA's emergency management strategy, and I will quote from it, it is "federally supported, State managed, and locally executed."

I have seen firsthand the importance of this local preparedness and response in Ohio on a lot of occasions over the past couple decades, representing southern Ohio and now the whole State. We have had flooding, we have had tornadoes, and we have had other emergencies.

In May 2019, we had a series of tornados that touched down across western Ohio, damaging or destroying hundreds of homes and businesses in the Miami Valley and displacing a lot of my fellow Ohioans. The most extreme damage occurred in Dayton, Ohio, area and the surrounding communities of Trotwood and Beavercreek.

Incredibly, and thanks in large part to the alert systems and training of our local first responders, while 166 people were injured, we did not have a single loss of life in the Dayton area that night, and if you had seen the destruction as I did, you would be amazed that people were not killed. It is amazing how quickly people got out of their homes and were able to avoid even worse situations. We did, sadly, have one casualty from a tornado that touched down further north in Salina, Ohio.

In the immediate aftermath, my wife Jane and I drove from our home to Dayton, Ohio, early in the morning, right after the tornado had hit, and we went to thank people, to show our support for the first responders, not to get in the way, but to ensure that they knew that we were there to support them and to talk to constituents who had been displaced.

We saw devastation, downed trees, and property damage, but we also saw the impressive work being done by our local first responders as well as immediate response from our State partners and also Federal partners who were already on the ground or on their way.

Montgomery County Sheriff, Rob Streck, took the lead in the Dayton area for much of the damage, and he had a command center set up immediately. I was able to talk to him and his team and the Central Ohio Strike Team, which is an urban search and rescue (US&R) unit out of Columbus, Ohio. I am really eager to talk more about the US&R teams around the country. We did pass legislation a few years ago to help our US&R teams, but they do an awesome job, and respond not just in Ohio but from Ohio all over the country, most recently with the hurricanes in the South, Southeast, but also with regard to 9/11. They were there, on the spot, and that was Ohio Task Force 1.

We also went to see the Red Cross and what they were doing, which was shelters that had been set up. Again, we talked to constituents about the situations they were facing. But less than 12 hours after the tornadoes hit, the Red Cross was already providing food, water, and shelter, and a place for people to stay who had lost their homes. This security and a place to stay was absolutely critical to the people I talked to, as they prepared to rebuild their lives, some from scratch.

Within a few weeks of the event, FEMA had three active centers open across the Miami Valley, with case workers, mental health workers, people who can help with businesses, people who can help with small business loans. They also established an area for children to decompress and an area dedicated to helping people with disabilities. This was all set up pretty quickly, and again, I had a chance to tour these.

I can assure you, it would have been much worse but for the preparedness our region and the preparedness our State had in place and the quick response from the first responders. I am proud of southwest Ohio for coming together so quickly in this case, but it is an example that I have seen around the State of preparedness done right.

Again, to Sima Merick, thank you for being here today and for the crucial role that you play for the National Emergency Managers Association in addition to your work in Ohio. You were leading the Ohio Emergency Management Agency (EMA) in 2019 when the tornadoes hit, and so I saw the good work that your folks were doing.

I look forward to all our witnesses today, and I look forward to discussing the importance of properly preparing for our natural disasters.

Thank you, Mr. Chairman.

Chairman PETERS. Thank you, Senator Portman.

It is the practice of this Committee to swear in witnesses, so if the witnesses will stand and raise your right hand, including those who are joining us by video.

Do you swear that the testimony you will give before this Committee will be the truth, the whole truth, and nothing but the truth, so help you, God?

Ms. MERICK. I do.

Mr. HANCOCK. I do.

Ms. PIPA. I do.

Mr. BUTLER. I do.

Chairman PETERS. Thank you. You may be seated.

Our first witness is Sima Merick. Ms. Merick serves as the Executive Director of the Ohio Emergency Management Agency and has been an employee of the Ohio Department of Public Safety for nearly 35 years. She began her career as a dispatcher for the Ohio State Highway Patrol in 1985, and held other positions within that division until 1996, where she began her career preparing the emergency management and mitigation techniques still widely utilized today.

Ms. Merick was appointed by Governor Kasich in 2011, to be Assistant Director of the Ohio Emergency Management Agency, and

served in that role until being appointed in June 2015 as Executive Director.

Welcome, Ms. Merick. You may proceed with your opening remarks.

TESTIMONY OF SIMA MERICK,¹ PRESIDENT, NATIONAL EMERGENCY MANAGEMENT ASSOCIATION, AND EXECUTIVE DIRECTOR, OHIO EMERGENCY MANAGEMENT AGENCY

Ms. MERICK. Thank you, Chairman Peters, Ranking Member Portman, and distinguished Members of the Committee for inviting me here today. Senator Portman, it is good to see you again. It feels like a couple of days or weeks ago that we were together at your Nonprofit Security Symposium in Columbus, so it is good to see you, sir.

As President of the National Emergency Management Association, I am proud to be representing the State emergency management directors of all 50 States, territories, and the District of Columbia.

To have success in addressing the threats of natural hazards, three fundamental pieces must be examined. These include how States help themselves, how we help one another, and the State-Federal partnership.

First, States help themselves by understanding FEMA is not a first responder and also by maintaining a close working relationship with our local emergency managers. According to data from a report NEMA does each year with our local counterparts, in fiscal year (FY) 2020, State and local emergency management organizations managed 19,752 events without Federal assistance. Additionally, 27 States maintain their own State-funded assistance program to help citizens and businesses when a disaster or emergency does not meet the criteria for Federal assistance.

Second, States help one another through efforts such as the Emergency Management Assistance Compact (EMAC). Celebrating its 25th year of service, EMAC has deployed nearly 40,000 personnel in State assistance since 2016 alone. Most recently here in Ohio, we used EMAC during the 2016 Republican National Convention (RNC). This brought trained, experienced, and equipped officers from other States to assist Cleveland in managing that significant event.

Finally, the Federal-State partnership is one of the bedrocks of emergency management. Whether it is the declaration process, shaping national policy, or programs like Emergency Management Performance Grants (EMPG), this partnership is seen in every corner of our profession. EMPG, in particular, is a great example. The only program in the NEMA suite of grants that requires a 50–50 match, and many States and local governments actually overmatch this program. We are grateful for the continued support Congress has shown over the past 18 months by providing the supplementals.

In my written statement I provide several examples of how Ohio is building capacity through programs like our Safe Room Rebate Program, a joint exercise with the Ohio National Guard, and pro-

¹The prepared statement of Ms. Merick appears in the Appendix on page 31.

viding virtual training opportunities. But for today's hearing I want to be sure I provide some recommendations on FEMA's future.

First, we must clarify the role of emergency management, particularly as it relates to events not warranting a Stafford Act declaration. FEMA should be the consequence manager for the Federal Government regardless of that. Let FEMA be the coordinator of Federal resources instead of forcing us, at the State level, to fumble our way through the Federal Government.

Second, we must ensure diversity and inclusion in emergency management. NEMA wants to work with FEMA in reviewing all current emergency management laws and policies through an equity lens, including identifying the intended and unintended effects of current policies on vulnerable communities.

Finally, we must work to reduce the complexity of the FEMA Public Assistance Program (PAP). For too long, FEMA has talked about simplifying the disaster programs, only to continue adding to existing procedures. Federal disaster programs and processes are too complex, they are slow, sometimes bureaucratic, and, in many cases, can impede State and local governments' best efforts to improve outcomes for individuals and communities.

In the past year, we have reiterated to FEMA our desire to work with them on all of these priorities, and hope we can work with you as well to find common ground in making FEMA and the emergency management professional more accessible to those it is intended to serve.

Thank you for your time today, and I look forward to any questions you might have.

Chairman PETERS. Thank you, Ms. Merick.

Our next witness is Jerry Hancock. Mr. Hancock serves as the Stormwater and Floodplain Programs Coordinator for the city of Ann Arbor, which is located in the great State of Michigan. He is appearing before the Committee today on behalf of the Association of State Floodplain Managers Association (ASFPM). He has an established record of specialized experience over 30 years in environmental planning. His previous roles have included serving as the Oakland County Drain Commissioner, Land Development Coordinator, and Natural Resources and Environmental Planning Coordinator.

Mr. Hancock, welcome to the Committee. You may proceed with your opening remarks.

**TESTIMONY OF JERRY HANCOCK,¹ EXECUTIVE DIRECTOR,
MICHIGAN STORMWATER FLOODPLAIN ASSOCIATION AND
STORMWATER AND FLOODPLAIN PROGRAMS COORDI-
NATOR, ANN ARBOR, MICHIGAN**

Mr. HANCOCK. Good morning. Thank you, Chairman Peters and Ranking Member Portman and Members of the Committee. I am Jerry Hancock, Stormwater and Floodplain Programs Coordinator for the city of Ann Arbor, Michigan. I am also the Executive Director of the Michigan Stormwater Floodplain Association (MSFA). I am honored to be testifying today on behalf of MSFA and also the Association of State Floodplain Managers.

¹ The prepared statement of Mr. Hancock appears in the Appendix on page 37.

My written statement identifies over a dozen specific items for your consideration.

Today the threat of flooding is worsening nationwide and in my State of Michigan. Nationally, annual flood losses are doubling roughly every decade, and in the past decade here in Michigan we have experienced numerous major flood events, most notable, our 500-year floods in Detroit in 2014 and again this year in June. There was also a 500-year flood in the Midland area that caused two dam failures last year. Then in 2018, there was an intense 1,000-year flood in Houghton. That is up in the UP, where I went to college.

For the balance of my time I am going to be highlighting five areas where preparedness and mitigation can be improved. First, hazard mitigation and risk assessment. Simply put, we cannot prepare or mitigate if we do not know where current and future hazard areas are located. For floodplain managers, this means we must have a nationwide program of updating rainfall frequency and have a robust set of flood maps that identifies all flood hazards, as was envisioned by Congress when it passed the National Flood Mapping Program (NFMP).

However, today only one-third of the nation's floodplains are mapped, and those maps do not include things like dam failure inundation and future conditions of flood areas that were required by the National Flood Mapping Program. Our flood maps in Washtenaw County were out of date shortly after they were adopted, due to our obtaining better topographic and precipitation data within just a year or two of the maps coming out.

Second, preparedness and mitigation are informed through good planning and State and local priorities. Here in Ann Arbor, we have developed and maintained a local hazard mitigation plan for the last 15 years, and we recently received Building Resilient Infrastructure Communities (BRIC) funding for our next update. Hazard mitigation plans identify priorities for mitigation strategies, such as the major structural flood reduction project we just completed for which we obtained a \$4 million FEMA hazard mitigation grant.

However, other communities were not so lucky to receive hazard mitigation plan funding, as the State set aside in BRIC or State priorities was too small. FEMA should ensure that pre-disaster mitigation programs like BRIC provide a more balanced funding approach to support State and local mitigation priorities.

Third, preparedness is enhanced through data sharing and better informing the public. For example, the Federal Government has been slow to publicly provide dam failure inundation maps, which again were required by the National Flood Mapping Program. Here in Michigan, where cascading dam failures north of Midland last spring resulted in flooding that went beyond the 500-year floodplain, having those dam failure inundation maps publicly available might have resulted in less damage and injury.

Another recently evolving issue is the hindrance of flood insurance claims data from FEMA. FEMA requires communities to analyze flood insurance claims information to complete hazard mitigation plans and to participate in the community rating system. I know, as Ann Arbor is a Class 6 community rating system community. However, FEMA is not providing the flood insurance data nec-

essary to successfully complete this analysis, or it is not providing it in a timely manner.

Fourth, to be a prepared nation we must have adequate State, local, territorial, and tribal (SLLT) capacity. Ann Arbor is unique to have a full-time floodplain manager position like mine, whereas most communities do not. States could help fill this capacity gap by providing technical assistance to communities. FEMA does have a successful program called the Community Assistance Program (CAP), which supports the National Flood Insurance Program (NFIP). This program could be replicated, funded through BRIC, and be made available to build and maintain capacity of State hazard mitigation programs.

Finally, preparedness and mitigation must be equitable. Reducing the complexity of applying for and administering FEMA flood mitigation grants, as was mentioned in the previous discussion, could assist in equitability.

Again, my written statement goes into much more detail on these and other floodplain management issues and recommendations. Thank you.

Chairman PETERS. Thank you, Mr. Hancock.

Our next witness is Jennifer Pipa. Ms. Pipa serves as the Vice President of Disaster Programs at the American Red Cross. She initially began her career with the Red Cross in 2004, after volunteering for the Disaster Action Team in Raleigh, North Carolina. Within one year she became the team's captain and swiftly moved to a role as caseworker for local families. Her tenure also includes working as the Operations Program Lead, Director of Volunteer Mobilization and Support at National Headquarters in Washington, D.C., and chief executive officer (CEO) of the American Red Cross of Central Florida.

Ms. Pipa, you may proceed with your opening remarks, and welcome to the Committee.

**TESTIMONY OF JENNIFER PIPA,¹ VICE PRESIDENT OF
DISASTER PROGRAMS, AMERICAN RED CROSS**

Ms. PIPA. Good morning, Chairman Peters, Ranking Member Portman, and distinguished Members of this Committee. Thank you again for the privilege to be able to testify today and share some of the impacts we are seeing across the Nation as we begin to respond to disasters.

Disaster preparedness, response, and recovery are the heart of our mission, and these needs are continuing to grow, especially in vulnerable communities. These communities are disproportionately impacted by climate-related disasters. Through this lens, we see climate change as a worldwide humanitarian emergency, a defining threat in the 21st century.

My full testimony is submitted for the record. Today I am going to talk about how the Red Cross responds to these disasters alongside partners at all levels, including the Federal Government, and to talk about our mission to alleviate human suffering.

The increasing rate of climate-driven disasters has become an unsustainable burden on the most vulnerable, notably low-income,

¹ The prepared statement of Ms. Pipa appears in the Appendix on page 49.

low-income communities of color, elderly, and people with disabilities. With climate change that was nearly very recently episodic and just a few series of acute events, it has now become a chronic issue with devastating impacts.

This situation is only exacerbated by other struggles disproportionately impacted families face daily, a growing level of income disparity, the challenges with affordable housing, lack of access to health care, and food insecurity. These disparities left many families struggling well before a disaster ever happened. Indeed, most often the folks that the American Red Cross helps or serving after large disasters are those who have little or no resources prior to the disaster. In fact, in fiscal year 2020, 63 percent of the clients that we helped were either at or below the Federal poverty level.

I want to share a couple of statistics that help inform our planning as the American Red Cross as we start to forge forward with this climate change initiative. The number of major climate-related disasters has increased sixfold in the past 40 years. By 2030, we anticipate responding to a significant climate emergency every 10 to 12 days, a near-constant state of response, leaving our communities in a chronic state of recovery.

I want to share one anecdote that was not in my written testimony. I had the opportunity to visit Louisiana this past weekend, and I spent some time at a Red Cross outreach where we talked with clients who had been impacted and connecting them with resources. It was a mom and her 12-year-old daughter, and as they talked to our caseworker they talked about how the roof of their home was totally torn off and that their home was no longer livable.

The natural question to them was, "So where are you staying now?" This mom and dad, and 12-year-old daughter, who said sometimes she is a good big sister and sometimes she is not, to her two younger brothers, simply said, "We are staying in our car."

They had to protect what little things they could salvage from the disaster, from a hurricane, and so they had to stay there to make sure that they were protected. That is just one story of thousands that we see every year when we respond to disasters.

And so what the Red Cross is starting to do now, what we have begun, is using data to inform how we manage our response activities. We look at social vulnerability index. This allows us to see communities that were already struggling prior to a disaster. We then take the forecasted track and then we can apply that, so we know where we need to be first, where we are most likely going to be longest, and where the people need the most help to begin their recovery journey.

This is not an only Red Cross organization. We cannot do this without partners, both at the Federal level and other nonprofits. In Louisiana alone, we got to work with the National Association for the Advancement of Colored People (NAACP) and Islamic Relief. These partnerships are critical. These help extend our reach into communities and make sure that every community that is impacted by disaster has the opportunity to connect with us and other agencies to make sure that their recovery begins.

Climate change is not about the number of inches that fell in rain in an hour. It is not about the category of the storm. It is not

about the acres that burned in a wildfire. It is about a family of five living in their car. It is about people who were struggling before this disaster ever happened and need more help now.

We are really privileged to be able to share what the Red Cross is doing. I want to take the opportunity to thank our donors who, through their generosity, we deliver the Red Cross mission. Most importantly, I want to thank our volunteers, who give the one thing that is most precious, of their time, to the American Red Cross. We look forward to working with U.S. Congress, other branches of the government, faith-based community, other non-profits and for-profits, because together we need to help these communities recovery.

I look forward to your questions. Thank you.

Chairman PETERS. Thank you, Ms. Pipa.

Our final witness is John Butler. Chief Butler serves as the Chief of the Fire and Rescue Department in Fairfax, Virginia. Prior to his time as chief, he served 26 years with the Howard County Department of Fire and Rescue Services and 21 years as a United States Marine, including two combat tours. He brings a wealth of experience, having held roles as a firefighter, paramedic, Italian chief, Emergency Medical Services (EMS) chief, and Administrative chief before being named Howard County's first African American Fire Chief in 2014.

Chief Butler, welcome to the Committee. You may proceed with your questions.

**TESTIMONY OF JOHN S. BUTLER,¹ SECOND VICE PRESIDENT,
INTERNATIONAL ASSOCIATION OF FIRE CHIEFS AND FIRE
CHIEF, FAIRFAX COUNTY, VIRGINIA**

Mr. BUTLER. Thank you and good morning, Chairman Peters and Ranking Member Portman. I am John Butler, Chief of the Fire and Rescue Department, Fairfax, Virginia, and the Second Vice President of the International Association of Fire Chiefs (IAFC). I appreciate the opportunity today to discuss how the Nation can address the threat of worsening natural disasters.

America's fire and emergency services is an all-hazards response force. There are approximately 1.1 million firefighters in the United States, serving with more than 30,000 career, volunteer, and combination fire departments. We are usually first on the scene and last to leave.

The nation is facing a wider variety of threats today than we have in the past. These threats include COVID-19 pandemic, a longer, more severe wildland fire season, and an increasing frequency of hurricanes and other major storms. Even a national pandemic affects citizens in their homes, which puts the fire and EMS services on the front lines against all these threats.

The past 18 months have provided a real-life stress test for the nation's preparedness system. Our public safety and medical staff have performed heroically in face of these threats. However, we also have found areas of improvement and new challenges. These include FEMA should review the National Incident Management System (NIMS) for long-term incidents. NIMS is designed for inci-

¹ The prepared statement of Mr. Butler appears in the Appendix on page 55.

dents that lasted a few days or weeks. Major incidents can take weeks or months, especially when recovery operations are included. The National Incident Management System, must account for command resources, supplies, and personnel for long-term events.

Second, new partners must be included in planning and training. The COVID-19 pandemic demonstrated the need to include public health officials. Utilities, public works, communications, transportation, and other critical infrastructure disciplines must be included to prepare for hurricanes, tornadoes, and wildland fires. They should be trained in NIMS and incident command systems.

There is a need to review mutual aid agreements and the expectations of the parties in these agreements, because like COVID-19, fire departments found that our neighbors were suffering from similar staffing shortages. There were concerns about sending resources across State or the Nation for fear of exposure to COVID-19. A mutual aid system needs to be strengthened. Complementary tools to EMAC, like IAFC's National Mutual Aid System can be used to move fire and EMS resources.

Also, the reimbursement system needs to be streamlined. Fire and EMS departments can wait years before they are reimbursed for interstate mutual aid deployments.

Fire and EMS departments are suffering from shortages in personnel. COVID-19 has created EMS shortages due to burnout and better job opportunities. Volunteer fire departments also face workforce challenges. Volunteers are concerned about taking COVID home to their families or being forced to take time off from their real jobs, their full-time salaried jobs, when they are exposed or infected.

There also have been some equipment shortages for basic personal protective equipment (PPE), including gloves. The semiconductor shortages has created delays in the delivery of fire apparatus and ambulances. The Assistance to Firefighters Grant (AFG) and Staffing for Adequate Fire and Emergency Response (SAFER) programs provide important funding to address these equipment and personnel issues, to provide matching grants to local fire departments using a peer review process.

To address the threat of growing disasters, the IAFC urges Congress to support programs like FEMA's BRIC and hazard mitigation grants. In addition, we urge FEMA to support State adoption of up-to-date codes and standards. We know that model building codes save lives and prevent property loss.

Also, communities should engage in planning, preparedness, and training for potential disasters. The IAFC's Ready, Set, Go! program helps communities.

I would also like to highlight the need to fund FEMA's US&R system. The US&R teams are supported through Federal, State, and local partnerships. All three entities are facing funding challenges.

Finally, we ask that Congress and the President appoint experienced leaders for FEMA. For example, we ask President Biden to appoint an experienced fire service leader as the U.S. Fire Administrator.

Over the past 18 months, the Nation has faced a wide variety of threats. The IAFC looks forward to working with you to address these challenges. Thank you for having me.

Chairman PETERS. Thank you, Chief Butler.

As I mentioned in my opening statement, earlier this year the STORM Act was passed and signed into law. The bill grants FEMA the authority to work with States and tribal governments to establish a revolving fund that can be used by local governments to carry out mitigation projects and reduce the natural disaster risk that they face. That includes flooding, it includes shoreline erosion, high water levels.

Mr. Hancock, as you mentioned in your opening comments, our home State of Michigan has faced record levels of flooding this year, as well as we have seen some extreme shoreline erosion along the Great Lakes. I would like you to comment as to how important accessing funds like will be contained in the STORM Act is to local governments, and also how important it is for local governments to have discretion as to which mitigation projects they would like to conduct.

Mr. HANCOCK. Thank you. That is a good question. The idea of providing funds through the State revolving loan fund has been around for a while but initially it was limited to the sanitary sewer system, but about 15 years ago opened up for stormwater. In Ann Arbor we use that extensively. We, in the past 10 years or so, we have done probably \$30 million worth of stormwater, mainly stormwater quality projects. So that type of funding is definitely a tool that is needed for communities. Like I said, we have used it extensively, and maybe so much so that we have kind of tapped out our resources in that area.

But that is a great tool to expand for flood mitigation and some of the other disasters and things that you mentioned, like rising high waters, shoreline erosion. So there are plenty of mitigation activities that would benefit from this type of funding, and, it is always good to have another tool in the toolbox, so this is another tool for communities.

I would say it is not going to replace the idea of grants, since there is a payback associated with the loans. Some communities may be limited. Here in Ann Arbor, we have a stormwater utility so we actually have a budget to do stuff like this. Some communities do not necessarily have that. But still, if they have like one particular project that they could not otherwise do, that is a great tool.

It is definitely something that I am sure communities are grateful that Congress is doing, and I applaud the effort.

Chairman PETERS. Right. Thank you, Mr. Hancock.

Ms. Pipa, in your opening statement you offered a very compelling story of the impact on families that these natural disasters can have. Unfortunately, a wide range of research has shown that FEMA assistance, despite the best of intentions from our folks at FEMA, often a FEMA assistant can actually exacerbate racial and economic inequalities after a disasters. Marginalized communities, as you mentioned, are often exposed to damage and have less access to resources in order to recover, and a trend that is only going

to continue as climate change continues to create more frequent and more destructive disasters.

My question to you is straightforward. What more can FEMA do to promote equity within its programs, and ensure that those who are hit hardest by these disasters and are generally folks who are economically disadvantaged and in communities of color, they need to have the opportunity to recover, what more should FEMA do?

Ms. PIPA. As I said in our opening statement, is it not one agency. It is a collaboration of agencies altogether. When you look at a footprint like Louisiana and you look at the multiple parishes that were impacted and you look at the neighborhoods that are geographically isolated, in some cases, look at like a Port Sulphur all the way in Plaquemines Parish, you will see homes, maybe 15 homes and then another 15 miles of industrial, and then another 10 homes.

So finding all of those locations and making sure we are connected is a job of all of the recovery agencies that show up there, and one of the ways we can do that is through sharing information and collaboration, so that when we talk to clients one of the things we make sure we do is make sure that they are connected with FEMA and that they are registered. It is one of the first conversations we have with our Red Cross clients as well.

So making sure that we are showing each one of our community members what they need to do and how they can connect with all of the resources, including FEMA, is a critical part of this.

These disasters are large in scope and scale and very complex, and different communities will choose to present or not present, for a wide variety of reasons. That is why it is important to have a variety of partners there on the ground, so that those communities feel trusted and welcome to come forward and apply for assistance.

Chairman PETERS. Thank you.

FEMA is the lead agency for Federal emergency response, but as you mentioned we need other agencies and nonprofits to come together. My question, though, is to Chief Butler. Specifically when it comes to first responders, what more would you like to see Congress do to support first responders who need to be there first on the scene to help communities when confronted with a disaster?

Mr. BUTLER. Thank you, sir, and that is a really good question. I would start by saying we appreciate what we already are afforded in the form of grants, and continuing those grant opportunities—AFG, SAFER, and the other grants—particularly funding and continuing to fund the US&R system is very important to us, because those are the frontliners who are responding to these disasters at times.

To some extent I will say the continuation of the support and the funding and an increase in those dollar amounts will go a long way.

Chairman PETERS. Thank you, Chief Butler.

Ranking Member Portman, you are recognized for your questions.

Senator PORTMAN. Great. Thank you, Mr. Chairman, and again, I thank the witnesses for your testimony today, and more importantly for what you do every day.

Chief Butler, we just talked a little about urban search and rescue. Back in 2016, you may recall we passed legislation that was worked on in this Committee, called the National Urban Search and Rescue Response Systems Act, and it enhanced compensation and protections for urban search and rescue teams and required FEMA to finance and replace certain equipment used by those teams.

How has that worked? Can you give us a sense of whether that legislation was helpful or not, and what more could be done to improve that legislation? You just mentioned the Federal grants funding the US&R system continuing. But can you give us a sense of where we are with regard to implementation of that legislation and what else could be done?

Mr. BUTLER. Yes. Thank you. We asked that Congress appropriate, \$50 million for the US&R system in fiscal year 2022. This funding would allow the US&R teams to replace current transportation assets like you have mentioned, sir, which are nearing the end of their lives, and the increased funding also would allow FEMA to conduct three or four full-scale exercises each year, to provide training along with operational readiness.

I will stop there and answer the genesis of your question, how has it worked so far. It worked well. It has worked well to this point. But as we have talked about this morning, the increasing demands and the increase in weather extremes and other needs to deploy US&R teams requires that we keep up with the pace and the funding and the infrastructure.

The US&R teams would be able to improve their capabilities for responding to subterranean incidents like trench or tunnel collapses as somewhat of an emerging threat, and also the US&R teams would be able to validate the use of new technology, like unmanned aerial systems (UAS) or robots.

The IAFC recommends increasing the funds for the US&R system, to adequately catalog and validate Federal, State, tribal, and territorial, local search teams.

Senator PORTMAN. Great. Thanks, Chief Butler. I appreciate it. We just celebrated our US&R team locally for the good work that they did down at the most recent hurricanes, but we also had kind of a sober commemoration of the 20-year anniversary of 9/11, where Ohio Task Force One, Dayton-Cincinnati area took off immediately. My wife actually saw them on the highway heading toward New York. She was coming from D.C. and she saw them in Pennsylvania, lights flashing that morning.

It is a great system. I am a huge supporter. It is a classic example of State-local. There is so much training and so much expertise that FEMA gets essentially for free, because you have these firefighters and others—doctors, people with trained dogs and so on—and they do a lot of this just as volunteers, and provide so much help and resources on a national level. So the search and rescue teams in every one of our States responds with mutual aid.

I am a huge supporter, and I think, frankly it is an investment that really pays off. I thank you for your service and thanks for what you said today, and we will follow up with you on your comments.

Ms. Merick, thanks for what you do in Ohio, again. One thing you talked about in your testimony that I thought was interesting was this Safe Room Rebate Program to help prevent Ohioans from needing assistance from an urban search and rescue team, as an example. Can you talk about that and what other ways that individuals and families can better prepare in order to avoid situations that would require rescue?

Ms. MERICK. Yes. Thank you, Senator. Our Safe Room Rebate Program in Ohio has just been phenomenal. We have over 450 safe rooms that have been put into residential plots of land, and one of the things that we do with that is to ensure that when people build a safe room or they have an in-ground safe room that they are coordinating with their first responders to let them know, like the codes, the geocoding of where it is at, in the event debris would fall on top of that storm shelter, so they would know to go and clear that place first. But otherwise, that is pretty much the response they would have to do.

Some of the other ways I think that families could better prepare to avoid these situations would be to make a plan for all hazards to include severe weather. Ensure you have included a communication plan. How will you let people know that you are OK?

I know recently, during Hurricane Ida, I had gotten a phone call from a friend of mine who has family down in Louisiana, and said, "You know, I can't get ahold of them. I don't know if they are OK. I don't know if they have power. I don't know if they got out."

So it is very important, that you have a communications plan and how you will reconnect, or where you will meet after an event. Know how you will receive information about those events. Have alerts active on your phone, enable them for the wireless emergency alert. Obtain a weather radio to keep in your house, work, places of worship, and other locations that may have your phones off or silent.

Probably the last thing I want to make sure is if you have a safe room, communicate that to your first responders, and this is so important in the community. While first responders, to include our urban search and rescue and Ohio Task Force One, are trained to look for survivors, if you can facilitate their efforts by letting them know that you have one, they have a chance to save more people, because they will just do a drive by your place to make sure that that is not covered by debris, and then they will be able to move on.

Senator PORTMAN. All good advice. Thank you, and I hope people are listening and will listen to you. Research has shown that \$1 of mitigation saves, on average, \$6 on future disaster costs. We mentioned earlier that the STORM Act is in the bipartisan infrastructure bill that is now before the House of Representatives. But we also have something in there called the Building Resilient Infrastructure and Communities program. There is \$1 billion for that. How important is mitigation for preparedness, Ms. Merick, and how has BRIC impacted Ohio?

Ms. MERICK. Senator, the first year of BRIC program, Ohio only received the set-aside amount. We, like most of the country, did not receive competitive funding due to some of the technical aspects of the program. Assuming passage of a bipartisan infrastructure bill,

we will have projects ready to go for the competitive package that we put together for the first year of funding. We will need to see how those projects fit within the future notice of funding opportunities that come out from FEMA. But, of course, we do appreciate having this additional pot of money to be able to tap into. We just have to figure out, over the years, the best way to be able to do that with some of those technical benchmarks that we need to make.

Senator PORTMAN. Great. My time has expired but we will follow up with you on some specifics on how to improve BRIC going forward. Hopefully this will pass the House of Representatives, even this week, and we will have that ability for Ohio and other States to apply for those competitive grants. Also we will follow up with you on the bureaucracy of FEMA and how to reduce some of the costs and inefficiencies and some of the delays that you have experienced.

Thank you, Ms. Merick. Thanks to all the witnesses. Thank you, Mr. Chairman.

Chairman PETERS. Thank you, Ranking Member Portman. We now recognize Senator Hassan for your questions. I also have to run over and vote, so I will also pass the gavel to you.

OPENING STATEMENT OF SENATOR HASSAN

Senator HASSAN [Presiding.] Thank you very much, Mr. Chair and Ranking Member Portman for this hearing, and a special thank you to all of our witnesses for the important work that you do to prepare our communities for natural disasters and for coming before this Committee today. I will add my own appreciation to that you heard from the Ranking Member and the Chair for all of the volunteers and first responders and disaster preparedness folks in our States and our communities. You do lifesaving, life-stabilizing work and you help our communities be resilient in the face of just incredible difficulty. I just want to thank you all for what you do.

I want to start with a question to Mr. Hancock. I am Chair of the Subcommittee on Emerging Threats and Spending Oversight (ETSO), so I am particularly focused on ensuring that the Federal Government spends taxpayer dollars efficiently and that we reduce waste, fraud, and abuse.

In 2018, as Senator Peters mentioned in his opening, a FEMA-sponsored report indicated that every dollar spent on Federal mitigation grants \$6 in savings. Mr. Hancock, how can we improve the ability of States and localities to invest in mitigation before a disaster strikes?

Mr. HANCOCK. I think the best way to do that is with the Federal Government partnering with the States to increase the capacity of States to respond. It is more easy for States to assist communities. With FEMA providing assistance to the States to increase their particular floodplain management capacity—in other words, staffing—so that they can, in turn, then work with the local communities, we think that is an efficient way to go about that.

An example, Sima Merick from Ohio mentioned that Ohio did not get any of the competitive BRIC funding. Neither did Michigan—only the set-aside—and that is an area where within BRIC there

could be a program within BRIC that just simply funds State assistance to increase the capacity of State governments to assist the local communities.

Senator HASSAN. Thank you. To Ms. Merick, for a long time I have heard from emergency management professionals in my State about the need to reduce the complexity of many FEMA programs and processes. In 2017, FEMA announced an initiative to co-locate teams of FEMA field staffers with State and local partners to improve communication and coordination between Federal, State, and local partners. These teams, known as FEMA integration teams (FITs), were created to help State and local partners more easily navigate some of FEMA's bureaucracy.

Emergency management officials in New Hampshire have responded positively to the creation of a FIT in my State, in New Hampshire. So based on your perspective as President of the National Emergency Management Association, have you found that FITs have been helpful in bridging the gap between State, local, and Federal partners?

Ms. MERICK. Today we do not have a FIT team. Let me make sure, am I unmuted.

Senator HASSAN. There you are, yes.

Ms. MERICK. OK. In Ohio we do not have a FIT team member or an integrated team, but reviews from other State directors that do have been very positive.

Recently I was at FEMA Region 5 in Chicago, and my partner States, the majority of them do have one or two in their State that have been helpful, in the area in which they are hired, in the preparedness and planning sections, to help navigate mitigation and working in some of the other programs.

I do not have a tremendous amount on this, but I do know that as my colleagues and I have talked about it they have been pleased with the FIT members that they have on their teams from FEMA.

Senator HASSAN. Thank you for that, and I would look forward to learning more about reactions from other States, because it seems to me that this might be an area that we want to expand on.

Ms. Merick, I have another question for you. Federal disaster recovery funds administered by FEMA allow a small percentage of each grant to be used to cover management costs like grant processing or oversight. Currently, management costs awarded for one disaster can only be used for that particular disaster.

Ms. Merick, what are the benefits of changing FEMA's policy so that it permits States and localities to utilize dollars provided for management costs across all open declared disasters?

Ms. MERICK. Sure. Thank you, and thank you very much for asking that question. States can utilize a certain portion of disaster costs to cover some of the administrative costs of the event. Currently, those funds are limited to a specific disaster, as you indicated. This creates a disincentive to close out disasters quickly as States naturally want to utilize as much of that funding as possible, and by keeping it open they can do so.

If management costs were disaster agnostic, States would be able to focus more on the recovery process than the administrative minutiae of tracking hours per disaster. If we were allowed to roll

over those management costs we could not only close out disasters much faster but also utilize those funds to build capacity in the long term for anything that we may face.

I should note here that NEMA was grateful to your staff for working with us last year in getting legislation drafted, and hope we can get something introduced again soon.

Senator HASSAN. I thank you for that and I would look forward to continuing to work with you on that.

I do have one more question but I think it would take us over time, so I will submit it for the record.

I am now going to recognize Senator Rosen, who should be with us virtually.

OPENING STATEMENT OF SENATOR ROSEN

Senator ROSEN. Thank you, Chair Hassan. I appreciate that. I want to thank Chair Peters for holding this hearing. It is really important as natural disasters have been occurring more frequently all around the country and all around the world.

I want to talk a little bit about wildfires, because across the country, but particularly in the West, devastating wildfires continue to worsen every year. They pose a serious threat to human life, to our health, to our personal property, to wildlife, and, of course, to our public lands.

In 2020, wildfires burned more than 10.3 million acres and destroyed more than 17,000 structures. Already this year we have seen over 45,000 wildfires burn nearly 6 million acres of land, including several recently affecting Nevada, like the Tamarack and Caldor fires. It is why I have been fighting for increased funding to mitigate our current wildfires and prevent further catastrophes, and recently led a group of western Senators in urging committee chairs to include these resources in our reconciliation package.

Climate change has increased the severity and frequency of wildfires and other natural disasters. Many say we no longer have a fire season. Unfortunately, fires happen year-round now, and we have to address that.

Ms. Merick, can you talk about the challenges that emergency managers face when dealing with continuous and worsening natural disasters year after year, without any intervening period of relief?

Ms. MERICK. Sure. Thank you very much. As we move forward, and we have learned a lot with this large-scale and ongoing response with COVID, that, our other tasks, our preparedness, our response or mitigation to natural disasters does not stop. We continue to have to be prepared to work on multiple events, activate or have separate activations simultaneously, at the same time, to make sure that we are preparing and coordinating and communicating not only with our locals, who were locally disasters start, work, and end at the local level, right? Then we are there when they exceed that capacity, and we also have that ability, the Federal Government.

But we have to also work with our Federal programs and our Federal partners to ensure that we know exactly how we execute those programs and what is on the table those days as we respond

and we move forward and we know what programs we have to make sure we are executing properly. It is always a challenge.

Senator ROSEN. Sorry. Thank you. By the way, I think my Internet skipped a beat there, so I did not mean to interrupt you. Thank you. I thought you were done.

I am going to move on with the same topic but to Chief Butler, because the current disparity in pay between Federal and non-Federal wildland firefighters, those hotshots, they call them, has led to a shortage of our Federal firefighting personnel. It limits our nation's ability to respond increasingly, again, to these natural disasters.

Chief Butler, how can Congress help with the recruitment and retention of wildland firefighters?

Mr. BUTLER. Thank you, ma'am. That is a really good question, and being a structural firefighting fire chief my entire experience has been with structural fires and communities as such. But my brothers and sisters in the wildland community are somewhat losing out in the competition when it comes to pay and salaries. There are a lot of choices out there, and a lot of opportunities for responders.

Senator ROSEN. I am sorry. Go ahead.

Mr. BUTLER. Yes. So keeping up with the salary of first responders and firefighters is very important. We know it, on the structural side, that the wildland community is kind of behind in paying salary.

Senator ROSEN. We are hoping that we are going to be able to pass some legislation that will create permanent, year-round positions for wildland firefighters, hopefully adding at least 1,000 more to help the cause—help the fight, not the cause—help the fight in this and pay them what they deserve to be paid. We really appreciate everything that they do out there to protect us.

Of course, you cannot fight a wildfire if you do not have water, so I want to move on and talk about drought, because 90 percent of the West is currently experiencing drought. The majority of areas are subject to significantly below average precipitation, extended dry periods. Again, this is one of the reasons we are having these wildfires.

Just last month, the Bureau of Reclamation issued a water shortage for Lake Mead, which provides water and generates electricity for more than 20 million people. The declaration means that Nevada is going to lose 7 percent of its allocation of water. In August, Nevada Governor Sisolak and nine other western Governors sent a letter to President Biden requesting that he declare a FEMA drought disaster in the West, allowing States to access Federal resources.

Like I said, wildfire and drought unfortunately go hand in hand. Ms. Merick, again, can you discuss the benefits of FEMA assistance in responding to the drought, and what actions should our communities be taking to prepare for some of the extreme drought as climate change begins to exacerbate conditions and, like I said, increase wildfires, just being one of them?

Ms. MERICK. Sure. Thank you. As we respond to any event, Senator, I think it is important that we focus on our basics of response. If we go back and look at our preparedness actions we continue to

communicate with our locals. We refer to our action plans, in which we need to ensure the response is being coordinated with the appropriate levels of the agencies, whether that is Federal, State, or locally, and then talk about the mitigation measures that have already been designed to move forward, or the pre-disaster mitigation measures that folks are starting to undertake, and ensure that those are being put out there and that people understand that they are happening and they can tap into those, and how do they tap into those events—I am sorry, those programs in which they can receive some guidance or preparatory actions.

Senator ROSEN. Thank you. I appreciate all of you for being here. Of course, in the West extreme heat, drought, wildfires, they are going to continue to plague us, as well as other disasters around our Nation. I appreciate the work and effort that you all put into helping us solve these problems. Thank you.

Ms. HARRIS. Thank you, Senator Rosen. Senator Johnson, are you—you are not available. OK.

I do have another question for Mr. Hancock. Climate change is increasing the cost of disaster response and recovery. The National Oceanic and Atmospheric Administration (NOAA), tells us that 2020 set numerous records—22 extreme weather and climate events, which each caused \$1 billion or more in losses.

Recent disasters, like the flooding that impacted New Hampshire communities this summer, underscore the need for action to safeguard the nation's infrastructure, protect businesses and communities, and safe taxpayer dollars.

The bipartisan infrastructure package includes funding that I pushed for to help communities invest in coastal resiliency measures. Mr. Hancock, could you discuss the importance of investments to help prepare for and mitigate damage from more frequent flooding events and other disasters spurred by the changing climate?

Mr. HANCOCK. Yes. The amount of disasters, like you said, are increasing so much so that communities are, as a few other people have said, it is one disaster after another after another. The capacity issue, I think, kind of comes back in this question, that States or communities do not have the capacity to respond to one after another after another. This is where we could use assistance from the Federal Government to help us increase our capacity during times when we are not having disasters.

This was talked about a little bit earlier, but a lot of the funding for just disaster response and recovery comes from disasters. It would be more helpful if it were more consistent and were not tied to individual disasters, and increase capacity unrelated to events.

Senator HASSAN. Got it. I also just wanted to follow up on that, because generally we have considered historic flood patterns when we look at planning and investment and mitigation. How important is it for State and local governments, as well as the Federal Government, to consider future flood risk in their infrastructure plans?

Mr. HANCOCK. That is a great question. So just like you said, most flood maps and most of the planning we do is based on what happened in the past. And to use one example, me, I work at a local community and respond to building proposals. When buildings are built they are not built just for today. They are built for dec-

ades. So to plan for a safe building based on what happened in the past may not necessarily make that building safe in the future. You can apply that logic to any infrastructure, whether it be a dam or stormwater pipes.

But when we are building infrastructure we are really building those for the future, and so having future conditions shown on flood maps would give communities the ability to plan appropriately for their infrastructure and buildings of the future.

Senator HASSAN. Thank you for that answer.

I am just going to check with our crew here. Is Senator Padilla available? OK. So next up is Senator Padilla.

OPENING STATEMENT OF SENATOR PADILLA

Senator PADILLA. I wanted to follow up on some of Senator Rosen's questions, but specific to California, where our most recent wildfire season was the worst on record. In 2020, the State experienced more than 10,000 fire incidents, more than 4.2 million acres burned, and more than 10,000 structures were damaged or destroyed.

California residents, both north and south, relied on local and regional fire departments throughout the State to provide expedient mobilization and response to ever-worsening fire seasons. However, as Chief Butler mentioned in his testimony, the National Fire Protection Association found that a third of the surveyed department stations did not have access to backup power, they are also suffering from either mold or asbestos, old ventilation system, and other environmental problems, and many do not have proper quarters for female fire and EMS personnel that serve as well.

So a question for Chief Butler. It is unconscionable to ask firefighters to fight ever-worsening fires when they do not have safe and adequate facilities to work in. Can you just share with the Committee what infrastructure shortcomings mean for the morale of personnel and the capabilities of the unit?

Mr. BUTLER. Oh, you hit it right on the head, sir, with the word "morale,"—morale equals mission success, and mission success equals morale. Taking care of the health, safety, and wellness of the responders is, and should be, paramount. There are many fire stations that would be condemned in many other communities. Our mental health is increasingly becoming—always should be and has been, but there is a lot of spotlight on reduction, carcinogen exposure reduction of firefighters, and there is a whole body of knowledge that shows that we need to pay attention to our personal protective equipment, keeping up to date, and being funded, funded appropriately for the proper PPE and fire stations and apparatus that we are on.

Senator PADILLA. I particularly appreciate you mentioning the impact on mental health of firefighters. I know the International Association of Fire Fighters (IAFF) has prioritized behavioral health for its members in the communities that everybody serves. I appreciate that, and I welcome ongoing conversation about what else this Committee and the Senate overall can do to support infrastructure needs of fire and emergency service.

But while I still have a few minutes I also wanted to raise the issue of the Stafford Act, which governs FEMA's disaster efforts. It

has given short shrift to communities facing wildfires specifically. Due to the unique nature of wildfires, many California communities have experienced difficulty after difficulty in the wake of recent catastrophic wildfires regarding reimbursement, regarding debris removal, disaster assistance eligibility, specifically individual assistance, not the public assistance, home insurance, and relocation assistance.

So first to you, Chief Butler. Do you have any specific thoughts on how FEMA could be more inclusive of the needs of the fire and wildfire response needs?

Mr. BUTLER. Yes, Senator. It starts with the leadership and the selection of the positions to be filled by credible and competent Administrator.

OK. I was kind of frozen there for a second. So, yes. I will stop there.

Senator PADILLA. Yes, OK. No, I appreciate that. We will follow up. And just on the same topic, in my time remaining on the same topic let me ask a question to Ms. Pipa. As a leading partner of FEMA in disaster response, do you have any ideas or suggestions on how FEMA regulations could be updated to better respond to the new reality of extreme weather and better support to better response to wildfires?

Ms. PIPA. Thank you for the question, Senator. There are a couple of ways that we can work together, and I think making sure that folks are connected into the system and that not just our agency but other nonprofits and for-profits and religious-based entities are there, helping to extend the reach into each one of those communities.

As we have seen, especially with the wildfire season over the last couple of years, it has begun much earlier, it has gone longer, and we have seen more ongoing destruction.

One of the things we look at is refreshing our workforce and making sure that we have additional volunteers to come out and support. At the same time, making sure that we are connecting with FEMA, both at the State level and at the national level, to make sure that we are aligned and that we know that we are both covering the communities that need those impacted and need the assistance in order to begin their recovery process.

Senator PADILLA. Thank you very much. I look forward to following up with everybody. Thank you, Madam Chair.

Chairman PETERS [Presiding.] Thank you, Senator Padilla. Senator Ossoff, you are recognized for your questions.

OPENING STATEMENT OF SENATOR OSSOFF

Senator OSSOFF. Thank you, Mr. Chairman, and thank you to our panelists in person and joining us remotely.

Ms. Pipa, I would like to discuss with you issues of particular concern to my constituents in coastal Georgia. Just a few weeks ago, I visited St. Marys in Camden County, Georgia, and convened local leaders to discuss the community's readiness for more intense tropical storms, storm surge events, coastal inundation.

The good news is that the bipartisan infrastructure bill, which the Senate passed last month, includes more than \$12 billion for coastal resilience programs, improving drainage infrastructure,

marshland remediation, the weatherization of public and private buildings, improvements to evacuation routes to assist coastal communities like those in Georgia's Golden Isles.

While these investments will help to mitigate the effects of disasters, we also need a prepared public, prepared local officials, and a robust and adaptable disaster response system.

I have two questions for you on this subject. The first is, can you describe what the American Red Cross is doing with a focus on the coastal Southeast and coastal Georgia to adapt your organization and resource allocation for events like those? The second question is, would you or a senior American Red Cross executive commit to joining me for a roundtable with local officials and community leaders in coastal Georgia to help inform the public about steps they can take to prepare themselves and to coordinate a better cross-jurisdictional preparedness program for those kinds of events?

Ms. PIPA. Thank you for both questions. I think to the first one, historically what we have seen is that there were certain geographic areas of the country that took preparedness seriously. We talk about the Gulf Coast. We talk about the West Coast. As we have seen over the past five to six years, that climate change is now exposing area that would not typically take preparedness actions, to take them.

Part of what the Red Cross is doing is trying to reach all of those communities with not only education that is in person, in schools, to kindergartners, to second-grade with Pillowcase, and then we have third through fifth with Prepared with Pedro. But we also do it through an app now, that is just a free app that folks can download.

One of the things we hear a lot in feedback is becoming prepared is expensive. It is a cost allocation, and for a family that is operating at or below the poverty level they do not have the luxury of being able to build a kit and be prepared. A lot of what we focus on are non-financial components that they can take into account—communications plans, as Sima talked about, making sure that you are calling someone; copies of your documents; knowing a hurricane escape route. There are absolutely no-cost preparedness actions that each family along the coast can talk.

You talk about investing in a better infrastructure to facilitate evacuations, right. As a family, we own part of that responsibility to know how we need to get out of that area and to listen to those officials.

So it is ongoing. We find that we educate parents but then we also educate the kids at school, which takes it home to them and helps. But what we see is messaging, time and time again, especially from leadership and elected officials. As you start into hurricane season it is a prime time. After a disaster you have seen, from a national perspective, people are more receptive to preparedness messaging and taking additional preparedness actions. Those are all pieces that the American Red Cross supports.

For your second question, for someone to commit to come down, absolutely. We have a fantastic regional executive there in Georgia or someone from National Headquarters would be happy to join you and facilitate a roundtable.

Senator OSSOFF. Thank you so much, ma'am. I appreciate that commitment. I am looking forward to continuing to work with you.

My next question is for Mr. Hancock, please. Mr. Hancock, are you still with us?

Mr. HANCOCK. Yes.

Senator OSSOFF. Excellent. Mr. Hancock, Georgia hosts about 24 million acres of forests and woodlands. Approximately 91 percent of this forest is privately owned. Georgia, therefore, has more privately owned acres of timberland than any other State in the Nation. I have heard consistently from private forest landowners in Georgia who are struggling to adapt and respond to natural disasters, that the resources are not in place at the Federal level to ensure that they are made whole and can continue with their work and the cultivation of what is a crop after, for example, a major tropical storm that fells forests or a major fire.

As we anticipate increasingly severe natural disasters, like hurricanes and wildfires due to climate change, we will have to commit greater resources to protecting and cleaning up forestlands and remediating damage to forests, conducting site preparation and replanting.

I discussed with Ms. Pipa the \$12 billion in coastal resilience investments in the bipartisan infrastructure bill. Fortunately, we were also able to help secure—and I want to give a shout-out to Senator Reverend Warnock, my colleague, for his efforts on this front as well—more than \$5 billion in the bipartisan bill for forest management.

But can you please share, Mr. Hancock, your perspective as a local environmental land and resources management professional what Georgia managers and owners of forestry can do to better prepare for natural disasters and what the Federal Government can do to better support private landowners of forests? Thank you.

Mr. HANCOCK. Yes. I think the answer to that is in preparedness, and preparedness starts with identifying hazards and potential hazards. Like I talked about with flood mapping, there are large parts, two-thirds of the floodplains in the country that are not mapped.

But the idea of the National Flood Hazard Mapping Program is that these maps should be showing all hazards. That would fit in with the forestry in Georgia, that maybe if they had these flood maps that showed all hazards it would help people be more prepared to respond to disasters, just so they know that these disasters are a potential there.

Having data that makes for good maps is critical. One example is precipitation frequency estimates, and that is something that is typically done by NOAA, in something called Atlas 14. In Atlas 14, the program for updating that is very disjointed, and each part of the country has a different method of getting money from States to help them or from the Federal Government. Shoring up that program and making it whole across the nation—I mean, there are parts of the country where the rainfall data is 30 to 50 years old. If we could have a consistent program and update that, say, like every five years, people might be able to prepare better for disasters. It would make mapping of these disasters much more efficient and accurate.

I think that is the answer, is having better data to prepare for these type of disasters.

Senator OSSOFF. Thank you, Mr. Hancock, for your response. Mr. Chairman, I yield.

Chairman PETERS. Thank you, Senator Ossoff.

I would like to take this opportunity to thank our witnesses for joining us today for this discussion. As we commemorate National Preparedness Month, it is important that we all take the time to hear from experts on how we can improve our nation's preparedness at all levels of government. This is increasingly important as climate change increases both the frequency and the severity of extreme weather events in our country.

I want to thank our witnesses for their testimony as well as thank them and all emergency responders all across our country as they have been working to address a very challenging COVID-19 pandemic as well as all of the other disasters that we face.

I also want to thank Ranking Member Portman for holding this hearing with me, as well as all the great work that we have been doing together on this topic.

The record for this hearing will remain open for 15 days, until 5 p.m. on October 14, 2021, for the submission of statements and questions for the record.

This hearing is now adjourned.

[Whereupon, at 11:24 a.m., the hearing was adjourned.]

A P P E N D I X

Chairman Peters Opening Statement As Prepared for Delivery Full Committee Hearing: Addressing the Threat of Worsening Natural Disasters September 29, 2021

Every September, we observe National Preparedness Month, a critical reminder that planning ahead for a natural disaster can help save lives.

Preparedness is becoming more and more important as we continue to see increasingly severe storms and weather events that create life-threatening situations and cause serious damage to our communities.

Driven by climate change, these extreme storms, hurricanes, wildfires, and floods, are becoming more frequent, and more destructive every year.

At the same time, our federal, state, and local emergency responders are also working to address the ongoing public health crisis caused by the COVID-19 pandemic.

As a result of these compounding circumstances, our disaster response resources, personnel, and volunteers are stretched thin, making emergency response and recovery more challenging and more expensive.

Severe storms, extreme flooding, and devastating wildfires cost our nation billions of dollars every year. But we can strengthen our disaster response efforts, and save taxpayer dollars, by making smart, forward-looking investments in mitigation before a disaster strikes.

In fact, studies have shown that every \$1 invested in hazard mitigation or prevention saves an average of \$6 in recovery costs for taxpayers.

As we continue to see worsening natural disasters, and the dire consequences they have on our communities, we must take swift action to upgrade our infrastructure and ensure our roads, bridges, homes, and businesses, are resilient enough to withstand increasingly severe weather events.

That is why I worked to pass the STORM Act, which was signed into law earlier this year, to help provide states and local communities with access to the resources they need to make these critical investments.

I was pleased to secure \$500 million in initial funding for the program as part of the Senate-passed bipartisan infrastructure bill and look forward to the House considering that bill soon.

The STORM Act, and this initial funding, will help kick start loan programs in every state to help communities begin to reduce their natural disaster risks.

In addition to creating these kinds of new opportunities to help communities prevent widespread damage, we must also ensure our disaster recovery efforts are working effectively.

Most importantly, we must have enough personnel and volunteers to assist in disaster recovery efforts. Ranking Member Portman and I introduced bipartisan legislation earlier this year that would help the Federal Emergency Management Agency, or FEMA, ensure that they are able to recruit and retain enough Reservists to quickly respond to emergencies by providing important employment protections. I look forward to continuing to advance this bill so that we can help reduce burdens that make it difficult for FEMA to recruit and retain emergency response personnel.

We have also seen firsthand how our disaster recovery resources do not always reach the communities most in need. Whether they are recovering from a hurricane or other severe weather events or seeking resources related to the COVID-19 pandemic response, too many of our most vulnerable communities do not have equal access to this vital assistance.

Communities of color and other underserved communities often disproportionately face the consequences of disasters, and our disaster response efforts typically provide slow or inadequate relief to those same communities.

Last Congress, I worked on legislation that would begin to strengthen our disaster response for all Americans by creating an office at FEMA that would be focused on ensuring equitable access to disaster assistance. I look forward to continuing that effort to ensure that no matter when or where disaster strikes, help will be readily available.

I appreciate our witnesses for joining us today and look forward to discussing these issues and other efforts that will help us strengthen our disaster preparedness and response efforts across the country.

Opening Statement
Ranking Member Rob Portman
U.S. SENATE COMMITTEE ON HOMELAND SECURITY
& GOVERNMENTAL AFFAIRS
“ADDRESSING THE THREAT OF WORSENING NATURAL DISASTERS”
SEPTEMBER 29, 2021

Thank you, Mr. Chairman, for holding this important hearing about the need to address the threat of worsening natural disasters. And thank you to our witnesses for attending.

Natural Disasters are becoming an increasing threat across the country, including some of the largest wildfires, droughts, and hurricanes in history during recent years.

While FEMA is the principle agency that coordinates the federal response to natural disasters, we have a decentralized emergency management system that emphasizes local first responders who are first on the scene when disasters strike.

This is reflected in FEMA’s emergency management strategy that is “federally supported, state managed, and locally executed.”

I have seen firsthand the importance of local preparedness and response in Ohio on numerous occasions over the past few decades when we’ve had flooding, tornados, and other emergencies.

In May of 2019, a series of tornados touched down across Western Ohio, damaging or destroying hundreds of homes and businesses in the Miami Valley and displacing many of my fellow Ohioans. The largest damage occurred in Dayton and the surrounding communities of Trotwood and Beavercreek.

Incredibly, and thanks in large part to the alert systems and training of our local first responders, while 166 people were injured, there was not a single loss of life in the Dayton area that night. We did, sadly, have one casualty from a tornado that touched down further north in Celina.

The next morning, my wife Jane drove from our home near Cincinnati to Dayton so that we could see the damage firsthand, thank our first responders who worked through the night, and to show support for all of those impacted by the tornadoes and storms.

I saw a lot of devastation, downed trees, and property damage. But I also saw impressive work by our local first responders as well as our state and federal partners.

I met with the Montgomery County Sheriff Rob Streck, who had set up a command center near some of the worst damage. I had the opportunity to talk with members of the Central Ohio Strike Team, an urban search and rescue unit from Columbus.

And during my visit, I dropped off some supplies at a Red Cross shelter in Vandalia at Morton Middle School. Less than 12 hours after the event, the Red Cross was already there, providing food, water, and shelter for individuals who had lost their homes.

We spoke with some of the families who said that having this security and a place to stay meant the world to them as they prepared to rebuild from scratch.

Within a few weeks of the event, FEMA had three active centers open across the Miami Valley, with case workers, mental health workers, people that can help with businesses and loans. They also established an area for children to decompress and an area dedicated to helping people with disabilities.

I can assure you: the situation in the Miami Valley would have been much worse but for the preparedness efforts our region and state had in place and the quick response by our first responders.

I'm proud of Southwest Ohio for coming together so quickly to respond and help with the relief efforts. This is a great example of preparedness done right.

It is with great pride that I welcome one of Ohio's leaders in emergency management, Sima [SIM-MAH] Merick, as one of our witnesses today. She has played such a critical role in building a culture of disaster preparedness not just in Ohio but also across the country as the President of the National Emergency Managers Association. In fact, Ms. Merick was leading the Ohio Emergency Management Agency in 2019 and shares credit for the preparedness that saved the lives of so many people when those tornados hit.

I look forward to her and all our witnesses' testimonies today as we discuss the importance of properly preparing for natural disasters.

Ms. Sima Merick

**President, National Emergency Management Association
Executive Director, Ohio Emergency Management Agency**

STATEMENT FOR THE RECORD

**On behalf of the
National Emergency Management Association**

Submitted to the Senate Homeland Security and Governmental Affairs Committee

Addressing the Threats of Worsening Natural Disasters

September 29, 2021

National Emergency Management Association
444 N. Capitol Street, NW Suite 401
Washington, DC 20001
202-624-5459

Thank you, Chairman Peters, Ranking Member Portman, and distinguished members of the Committee for allowing me to testify today.

I am proud to testify today on behalf of the National Emergency Management Association (NEMA). NEMA represents the state emergency management directors of all 50 states, territories, and the District of Columbia. As Executive Director of the Ohio Emergency Management Agency and on behalf of my colleagues in state emergency management, we thank you for holding this discussion on the current state of preparedness for natural disasters and how we are handling the increasing number of events.

BUILDING CAPACITY

To have successes in preparedness, states must work hard to ensure their capacity to effectively respond and recover. Three fundamental pieces stand-out when looking at state capacity – How States Help Themselves; How States Help One Another; and The State-Federal Partnership.

How States Help Themselves. The Federal Emergency Management Agency (FEMA) is not a first responder. According to a report produced by the National Emergency Management Association (NEMA) and International Association of Emergency Managers (IAEM), in FY20, state and local emergency management organizations managed 19,752 events without federal assistance. Furthermore, we must set expectations in what federal programs can, cannot, should, and should not be able to accomplish.

According to NEMA's 2020 Biennial Report, 27 states maintain their own state-funded assistance program to help citizens and businesses when a disaster or emergency does not meet the criteria for a federal declaration. Of those, 21 have public assistance programs; ten have individual assistance programs; six offer unmet needs programs; and nine have other assistance programs. Other assistance programs also exist to meet shortfalls such as short-term housing assistance, hazard mitigation programs, housing and personal property losses, and shortfalls in local budgets due to damage incurred by a disaster.

How States Help One Another. For the past 25 years, states have utilized the Emergency Management Assistance Compact (EMAC) to fill resource shortfalls during times of emergency or disaster. I utilized EMAC in Ohio during the 2016 Republican National Convention with great success. Without the trained, experienced, and equipped officers from other states, the City of Cleveland would not have been able to fully implement their security plan. This is the value of the EMAC, an all-hazards, all-disciplines system that can tap into any resource or service a state may need and leverage that experience for national response. We have seen examples of similar successes across the country:

- One week into Hurricane Ida's response over 4,000 personnel were deployed with another 1,000 personnel to follow in the weeks to come. To date, 24 EMAC member states, including Florida, Georgia, Kentucky, Michigan, Missouri, Ohio, Oklahoma, Wisconsin, and others have sent resources to Louisiana in response to Hurricane Ida.
- With states stretched to their limit during the COVID-19 response, limited public health, medical, and EMS resources were shared through mutual aid. States like Delaware and others requested and received a loan of ventilators from California, and other states were able to share N-95

- masks, gloves, gowns, and other commodities through EMAC.
- When the U.S. Forest Service saw a shortage of wildland fire fighters, California requested and received fire fighters and National Guard resources from Arizona, Oklahoma, Utah, Wisconsin, and other states. Nevada has also been supporting a shelter operation through EMAC for displaced citizens fleeing from California wildfires.
- Oklahoma served as a virtual liaison to the FEMA Region VI Regional Response Coordination Center, saving both time and money to coordinate the state EMAC response with FEMA and the Emergency Support Functions.
- Montana, the District of Columbia, and NEMA provided virtual liaison support to the FEMA National Response Coordination Center, the National Guard Bureau, and U.S. Northern Command.

Since March 2020, nearly 10,000 personnel have been deployed through EMAC, leveraging the nation's best response and recovery personnel to help one another. No other mutual aid system in the nation has the efficiency, flexibility, and scalability of EMAC which has deployed nearly 40,000 personnel since 2016.

EMAC gives states the opportunity to leverage federal grant dollars invested in building capabilities and provides experiences that can be taken back home to improve plans and procedures. This culture of preparedness is the core of the nation's emergency management capabilities, deploying National Guard as well as equipment and personnel from all response and recovery disciplines in response to any range of hazards is simply unparalleled.

Implemented by the state emergency management agencies for a coordinated response, EMAC has grown to include all 50 states, the District of Columbia, the U.S. Virgin Islands, Puerto Rico, Guam, and the Northern Mariana Islands since being ratified by Congress as Public Law 104—321 in 1996.

As EMAC celebrates 25 years, states continue finding innovative ways to utilize the Compact and to continually improve implementation starting with pre-scripting resource requests and developing Mission Ready Packages for rapid response. Over the coming years, states will be working with FEMA to identify areas where the reimbursement and documentation requirements of mutual aid can be simplified under the Public Assistance program to reduce complexity in direct support of FEMA's strategic goal.

The State-Federal Partnership. One of the ways in which emergency managers build capacity is through programs such as the Emergency Management Performance Grant (EMPG). With a one-to-one matching requirement at the local and state levels, this program represents one of the best values in federal investment. EMPG continues as a critical driver of progress and success made across the country in preparing for, responding to, and recovering from all hazards. The program's success is shared by all levels of government and relies heavily on the continued, and decades-long, commitment of Congress.

In 2020, the federal investment in EMPG was \$355 million — a little more than \$1 per citizen — and with the match requirement and additional state and local investment, the return on investment exceeded \$700 million and was felt in communities from Maine to California. Every investment the federal government makes is matched dollar-for-dollar and, in most cases, states, localities, and tribes match even

more, illustrating that any cuts to EMPG funding will have far-reaching and long-term impacts on readiness.

For these reasons in FY22, NEMA joined with colleagues of IAEM, representing local emergency management, in requesting Congress codify one of the supplemental funding amounts of \$100 million to bring the annual total to \$455 million. Given the matching requirement of EMPG, many of which states and locals far exceed, this increase will have a combined impact totaling at least \$200 million nationwide. Few other federal programs can demonstrate that rate of return.

OHIO SPECIFICS

In recent years, Ohio boasts myriad preparedness activities underway to help build capacity, improve response capabilities, and expedite recovery efforts. The recent events we managed, in conjunction with the COVID-19 response, have tested our preparedness efforts. But due to the success of some ongoing programs, we continue to be successful.

Since the outbreak of COVID, Ohio's Emergency Operations Center remains active after nearly 500 consecutive days. In addition to the more than 3,000 missions in support of Ohio's residents, first responders, and health community for COVID, we continue administering Public Assistance for weather-related disaster from 2018 and 2019. Despite these ongoing events, our continued preparedness programs are stronger than ever.

The Ohio Safe Room Rebate Program provides a rebate for the purchase, construction, and installation of tornado safe rooms for homeowners selected for the program. This is particularly important as the entire State of Ohio is at risk of an EF5 tornado. Since 2011, the State of Ohio has been able to use Hazard Mitigation Assistance grant programs to fund over 465 safe rooms statewide. Montgomery County, which saw the brunt of the effects from the Memorial Day tornadoes in 2019, is currently the County with the most safe rooms in the State of Ohio.

In August 2019 the Ohio National Guard, in conjunction with the Ohio Emergency Management Agency, hosted the national level exercise Vigilant Guard 2019 (VG19). Co-sponsored by U.S. Army Northern Command and the National Guard Bureau, the scenario was based on a local, state, and federal response to a cyber-event that subsequently caused natural gas pipeline disruption and electrical blackouts impacting a large region. These major events triggered cascading challenges, including but not limited to, CBRNE, HAZMAT, civil disturbance, and mass casualty. The exercise worked to validate existing capabilities, levels of preparedness attained, and areas for increased preparation and response capability development. This effort paid dividends just months later when Ohio engaged in its largest-ever response operations related to COVID-19.

During this global pandemic, Ohio led the nation in best practices for virtual training. The Training and Exercise Section of my agenda hosted dozens of acclimation meetings with out-of-state, federal, and military partners from around the country to share our best practices of conducting virtual trainings. Most important was the focus on Incident Command Systems (ICS) trainings to ensure that the whole emergency response community understands ICS, national incident management systems, and unity of

effort required to work collaboratively during emergency response. Within the state, the Training and Exercise Section worked closely with the Cleveland Division of Police to support ICS training for their leadership staff in preparation for the 2021 National Football League Draft event, hosted in Cleveland in April 29 through May 1, 2021. In total, the Training and Exercise Section coordinated over 100 trainings and provided individual acclimation meetings for hundreds of students.

While the normal state disaster exercise schedule saw adjustment due to COVID-19 response, many exercises were still conducted to face the threats at-hand. These include hosting the Election Security Brief for the Ohio Mayor's Alliance, multiple COVID-19 response, and mass vaccination exercises, as well as releasing new K-12 Toolkits in coordination with Ohio Homeland Security. Ohio previously released multiple toolkits including [Mall Active Shooter](#), [Business Continuity: Disaster in the Workplace](#), [Higher Education Active Aggressor Tabletop Exercise Toolkit](#), [Houses of Worship: Targeted Disruption](#), and the [K-12 Severe Weather Table Top Exercise Toolkit](#), [K-12 School Hazmat Tabletop Exercise Toolkit](#), and [K-12 School Active Aggressor Tabletop Exercise Toolkit](#). These toolkits have been downloaded more than 3,700 times in nine countries and 46 states.

BUILDING FOR THE FUTURE

Earlier this year, NEMA released a set of policy recommendations to help modernize the profession and recognize the ever-changing face of disasters and disaster survivors. In addition to building state capacity, these recommendations focused on clarifying the role of emergency management in the age of COVID, building equity, and simplifying existing programs.

Clarify the Role of Emergency Management. The response to COVID-19 highlighted many successes but also weaknesses at all levels of emergency management. At the federal level, FEMA was not properly utilized until well into the event. The role of emergency management in all-hazards events, traditional and non-traditional, must be more clearly defined and formalized. Recommendations include:

- Define FEMA's role during incidents and disasters that require multiagency coordination. FEMA should be the lead coordinating agency for all multi-agency incidents across all phases of the incident, including recovery. This includes Stafford Act and non-Stafford Act events.
- Ensure FEMA's capacity to successfully achieve interagency coordination through adequate resourcing, staffing, and authorities.
- Maintain open lines of communication with elected leaders to ensure response plans are adequately understood, communicated, and rehearsed. Lessons learned from the COVID-19 response should be included to ensure adherence to plans during future events.

Ensure Diversity and Inclusion in Emergency Management. The role of disaster response and recovery requires sensitivity to the needs of all disaster survivors and equitable and fair distribution of federal assistance to all those affected. Recommendations include:

- Thoroughly review all current emergency management laws and policies through an equity lens, including identifying the intended and unintended effects of current policies on vulnerable individuals and at-risk communities. Special focus should be given to institutional inequities in hazard mitigation, individual assistance, and public assistance programs and include at-risk communities in areas susceptible to future effects of climate change.

- Integrate equity and cultural competence into current FEMA doctrine, training, and educational programs to influence sustainable changes throughout the Emergency Management Enterprise. Work with state and local officials to identify ways in which the Threat Hazard Identification and Risk Assessment (THIRA) and State Preparedness Report can be utilized to ensure equity and deploy grant funds accordingly.
- Ensure the makeup of personnel within emergency management agencies look like the communities they serve. State and local emergency management must seek new ways to recruit and retain a diverse workforce.

Reduce the Complexity of the FEMA Public Assistance Program. Federal disaster recovery programs and processes are too complex, slow, bureaucratic, and in many cases can impede state and local governments' best efforts to improve outcomes for individuals and communities. Despite myriad attempts in recent years to streamline the Public Assistance Program, FEMA continues to struggle to achieve stated goals, incorporate the latest technology, and provide maximum flexibility to state and local officials. Recommendations include:

- Conduct a review of FEMA Headquarters versus FEMA Regional decision-making roles and authorities to aid in streamlining and fairness. While regions should have the flexibility in tailoring programs to the needs of individual states, all policy, guidance, and regulations should be applied fairly across the ten FEMA regions.
- Allow for grantees to utilize management costs allowance across all open disasters. As FEMA continues to evolve new management cost policies afforded through the Disaster Recovery Reform Act (DRRA), they should allow grantees to utilize management costs across all open disasters. This will help to enhance recovery and mitigation capacity, incentivize disaster close-out, and drive down the costs of disasters.
- Incorporate enhanced use of technology for Preliminary Damage Assessments (PDA). Integrate lessons learned from COVID-19 response to adopt operational remote PDAs as accepted practice.

CONCLUSION

On behalf of the state emergency managers, thank you again for holding this hearing and drawing attention to the needs of the emergency management community. Collectively, emergency management believes we must work together in building our respective capacities to respond, enhance equity in state and federal programs, and streamline FEMA programs to get assistance more quickly to the people who need it most. We can accomplish this by working together across all levels of government and ensuring the role of emergency management is clear regardless of the hazard. In doing all this, we look forward to continuing the strong relationship we have with this committee, and I welcome any questions you may have of me.



TESTIMONY

Addressing the Threat of Worsening Natural Disasters

Before the

Senate Committee on Homeland Security and Governmental Affairs

By

Jerry Hancock, CFM
Executive Director
Michigan Stormwater Floodplain Association

September 29, 2021

Introduction

On behalf of the Michigan Stormwater Floodplain Association (MSFA) and the Association of State Floodplain Managers (ASFPM), we appreciate the opportunity to discuss our views and recommendations on addressing the threat of worsening floods during National Preparedness Month. We thank you, Chairman Peters, Ranking Member Portman and Members of the Committee for your interest in this important subject.

The ASFPM and its 38 chapters, including MSFA represent more than 20,000 local and state officials as well as private sector and other professionals engaged in all aspects of floodplain management and flood hazard mitigation, including management of local floodplain ordinances, flood risk mapping, engineering, planning, community development, hydrology, forecasting, emergency response, water resources development and flood insurance. All ASFPM members are concerned with reducing our nation's flood-related losses. For more information on the association, visit www.floods.org.

Floods are the nation's most frequent and costly hazard. The cost to taxpayers continues to increase at an alarming rate. ASFPM estimates average annual flood losses were about \$5.6 billion in the 1990s. This increased to an average annual flood loss of \$10 billion in the 2000s, and in this past decade came close to doubling again with a conservative estimate of \$17 billion per year.

Flooding affects many property owners nationwide. Unfortunately, for those less fortunate who have little financial ability to move out of high-risk areas, many federal policies create a moral hazard as well. Recent studies estimate that as many as 60 million people live in flood hazard areas—whether it be the 1% annual chance (100-year) floodplain or the .2% annual chance (500-year) floodplain. This does not account for the other flood hazard areas such as storm surge zones, tsunami zones, residual risk areas due to potential dam or levee failures or emergency water releases from dams.

The nation faces an increasingly disruptive urban flooding threat. Indeed, flood risk is far more widespread than is perceived, or generally known or recognized. Through flood hazard identification, the flood risk can be better understood, but as a society, we are not doing enough to reduce flood risk until it is often too late and a flood is bearing down on an area. Individual property owners are affected differently from flooding risks and sea level rise depending on the actions that they have or have not taken to reduce that risk.

The ultimate question from a public policy standpoint is how do we get property owners and communities prepared for a future where flood risk is more significant and, in some areas, predictably far worse? What adjustments do we need to make in our approach to flood risk management to increase awareness of hazards and to align our policies and programs to ensure a high degree of resiliency as communities face tough choices about where to grow and where to invest? Experience tells us that at the community scale, flood resilience is a multi-decadal process. The most successful communities in the country, such as Charlotte, North Carolina or Tulsa, Oklahoma have been preparing for and mitigating flood risk for three decades or more, and still much remains to be done.

Preparedness Begins with the Comprehensive Identification of Hazards and Assessment of Risk

You cannot be prepared if you don't know your risk. In addition to being an important part of the National Flood Insurance Program (NFIP), floodplain mapping is the foundation of all flood risk reduction efforts, including design and location of transportation and other infrastructure essential to support businesses and the nation's economy. The flood maps are also used for emergency warning and evacuation, community planning, and

locating critical facilities like hospitals, schools and emergency shelters. Floodplain mapping is cost-effective and delivers at least a 2-to-1 taxpayer benefit, and floodplain maps support communities' resilience actions.

When it comes to identification of flood risk, the NFIP has compiled one of the world's most comprehensive datasets related to flooding. Despite that success, more than half of the United States remains unmapped and much of the nation lacks critical data needed by communities to plan for the future. For most of the NFIP's history, flood mapping was primarily done to support two NFIP functions: flood insurance rating and floodplain management standards. As a result, two pieces of data were typically produced: the 100-year and the 500-year flood zones. However, as the NFIP grew and as flood risk management became more important, the nation's citizens looked to the FEMA flood maps as the primary source of any kind of flood risk information for a given area. In 2012, Congress, for the first time as part of the NFIP reform legislation, authorized a National Flood Mapping Program (NFMF) and at the same time adopted a more expansive view of flood mapping. It required, among other things, several new, mandatory types of flood risks to be depicted on the nation's Flood Insurance Rate Maps (FIRMs), beyond the 100-year and 500-year flood areas, including:

1. All populated areas and areas of possible population growth located within the 100-year and 500-year floodplains;
2. Areas of residual risk, including areas that are protected by levees, dams, and other flood control structures and the level of protection provided by those structures;
3. Areas that could be inundated as a result of the failure of a levee, dam, or other flood control structure;
4. Areas that are protected by non-structural flood mitigation features;
5. Ensuring that current, accurate ground elevation data is used;
6. Inclusion of future conditions risk assessment and modeling that incorporates the best available climate science; and
7. Including any other relevant data from NOAA, USACE, USGS and other agencies on coastal inundation, storm surge, land subsidence, coastal erosion hazards, changing lake levels and other related flood hazards.

Unfortunately, we are not aware of any single flood map in the entire country where all of these data sets exist on either a FIRM panel or in the accompanying data FEMA provides. Therein lies the problem. The NFIP has been mapping floodplains since 1968 and we have had a National Flood Mapping Program, which has been authorized by Congress since 2012, but many key elements have not been implemented. In fairness to FEMA, during the past decade, the agency has made progress on improving the quality of the existing flood maps, in use of high-resolution topography, and in the area of communicating information to communities and the public (either through the mapping process itself or through technologies and tools). Nevertheless, we believe these additional elements Congress required are essential for an effective national flood mapping program.

What is the gap then? ASFPM believes that the gap lies in getting the job of initially mapping the nation done.

Consider:

- Based on the National Hydrography Dataset (NHD) and NOAA shoreline data, there are approximately 3.5 million miles of streams and rivers, and 95,471 miles of coastlines in the nation. Currently, only 1.14

million stream miles and 45,128 shoreline miles have flood maps. By this metric, only about 1/3 of the nation has been mapped.

- More than 3,300, or roughly 15%, of NFIP communities have maps over 15 years old, with many of these over 30 years old and still using old-fashioned paper maps.
- Many of the added mapping requirements from 2012 haven't even been started beyond preliminary studies and research. This includes residual risk mapping around flood control structures and future conditions mapping. A [2016 TMAC report](#) reviewing the National Flood Mapping Program stated: *"To create technically credible flood hazard data, FEMA needs to address residual risk areas in the near term. Residual risk areas associated with levees and dams are of great concern."*
- In 2020, in a House Science Committee [hearing](#) examining FEMA's flood mapping program, FEMA recognized these mapping needs and testified that appropriations simply have not been enough to make meaningful progress on the additional mapping responsibilities identified under the National Flood Mapping Program.

This gap in data is contributing significantly to the increasing flood losses in the nation. A 2018 [study](#) shows that the total U.S. population exposed to serious flooding is 2.6 - 3.1 times higher than previous estimates, and that nearly 41 million Americans live within the 100-year floodplain (compared to only 13 million when calculated using FEMA flood maps). This translates into 15.4 million housing units. The same study indicates that over 60 million people live in the 500-year floodplain.

In 2020, ASFPM completed the update to its 2013 report [Flood Mapping for the Nation](#), which modeled the costs to fully implement the National Flood Mapping Program under the 2012 Biggert-Waters Reform Act and complete the initial flood mapping of the nation. We conclude that it will cost between \$3.2 and \$11.8 billion to complete the mapping in the nation and then cost between \$107 and \$480 million to maintain these maps as accurate and up-to-date.

To improve flood mapping in the nation:

- **We recommend the reauthorization, funding, and enhancement of the National Flood Mapping Program (NFMP) as part of NFIP reauthorization.**
- **We support an increased authorization for the National Flood Mapping Program to between \$600 million to \$1.8 billion annually in order to accelerate the completion of the job of initially mapping the nation in five years and getting to a steady-state maintenance phase.**
- **FEMA must complete the initial flood mapping of the entire nation to get mapping ahead of development and FEMA must prioritize the elimination of the un-modernized paper map inventory in the nation.**
- **We support the one-time flood map funding investment of \$3 billion as part of the reconciliation bill as a significant down payment on finishing the initial job of completing flood mapping for the nation.**

In hundreds of communities across the nation, residents have experienced substantial and sometimes alarming increases in both the frequencies and areal extents of high-volume precipitation events. These have often been accompanied by increased flooding and substantially increased flood damages and other costs, including damage to homes, businesses and supporting infrastructure. The stormwater and flood management systems that were built in the past using now-outdated precipitation records are now often overwhelmed and are suffering considerable damage due to increased rainfalls.

Atlas 14 is an essential precipitation frequency tool developed and maintained by NOAA that informs federal agencies, engineers, states, tribes, communities, businesses, and citizens of the frequencies and high-level precipitation volumes that can be expected in given areas and regions, based on historical experience. The Atlas 14 studies, over time, and especially in some regions, have become seriously outdated. Accurately identifying, through regional volumes, the high-level precipitation and the likely frequencies of occurrence are fundamental to providing accurate and reliable flood risk information and flood maps for all U.S. communities. They are also vital for planning and guiding community development and are used in the design of most of the nation's local, state, tribal, and national infrastructure to avoid crippling and costly damages from the adverse impacts of floods, and to save lives.

The National Oceanic and Atmospheric Administration's National Weather Service, Office of Water Prediction has generally undertaken the efforts to develop, maintain, and update Atlas 14. Nevertheless, the development and updating of Atlas 14 volumes has often lagged, sometimes literally for decades, because no dedicated funding has been available for updates, which scientists say should be done at least every five years. Previous hearings before the Senate Commerce, Science and Transportation Committee and the House Committee on Science, Space and Technology have expressed strong concerns that Atlas 14 updates have experienced delays due to funding problems and the failure to incorporate the most recent critical data. In the wake of recent hurricanes and Gulf Coast tropical storms, and culminating especially with Hurricane Harvey in Southeast Texas, the Atlas 14 volume for the Texas region was updated (but not until after Harvey), showing that the design storm 24-hour precipitation event—with a 1% annual return frequency (commonly referred to as the 100-year event), has now grown by more than 30 percent, literally over the past decade. The resulting problem was clearly shown in 2017's Hurricane Harvey, when thousands of homes outside the then-identified 100-year, and even the 500-year floodplain, were flooded because the flood maps were based on the old Atlas 14 projected rainfalls. In addition to the federal taxpayers having to help pay to repair all those flooded homes, Texas Coastal communities, consequently, are revising building codes and basic storm water drainage and flood management systems in recognition of the much higher precipitation levels they are experiencing and now anticipating.

NOAA has indicated that for approximately \$3.5 million annually, the nation's regional Atlas 14's could be kept updated, creating a much-needed nationwide uniform atlas, and communities could receive data layers reflecting updated present and future conditions precipitation frequencies, based upon observed and reasonably predicted climate and weather-based trends.

Currently, the updating process is entirely dependent on states and local governments within a region donating the update funds—which often takes years to cajole and accumulate, and often results in years-to-decades of delays in updating these crucial studies. At present, except for Texas, which was completed in 2018, and a minor 2019 New England update, for all other Atlas 14 volumes, far more than five years have elapsed since they were updated, therefore not reflecting more recent precipitation events that have been more intense and frequent in many areas of the country. Notably, for the Ohio River Basin and many surrounding states, it has been nearly two decades since these volumes were updated, and for the Northwest states of WA, OR, MT, ID and WY, it has been nearly 50 years since the region's precipitation frequency atlas was updated. NOAA has also indicated that it would be far more efficient and cost-effective to approach these updates on regional and national scales, rather than state-by-state. Providing updated, authoritative, national precipitation frequency data and analysis has been a long-standing, basic NOAA Weather Service responsibility, upon which many other federal agencies' as well as state, local, tribal, and private sector responsibilities and standards are predicated.

- **We strongly support the inclusion of \$492 million in the bipartisan infrastructure bill for coastal and inland flood inundation mapping and forecasting and next generation water modeling activities, including modernized precipitation frequency and probable maximum precipitation studies. Further, we urge Congress to pass the FLOODS and PRECIP Acts to provide ongoing authorization to develop and provide these important flood frequency data.**

Preparedness is Informed through Good Planning and State and Local Priorities

For over 20 years, states and communities have developed and updated hazard mitigation and preparedness plans. The Disaster Mitigation Act of 2000 has challenged states and communities to identify their hazard mitigation and preparedness priorities, as well as to periodically update them. Despite these major risk assessment and planning efforts undertaken by states and communities, we are concerned with what we are seeing as a trend in FEMA programs to be overly prescriptive, increasing focus on FEMA priorities versus state and local priorities. For example, in the State of Michigan's 2019 Hazard Mitigation Plan, a general principle is to implement the flood mitigation actions in the following order of priority:

1. Acquisition and relocation of flood-prone structures.
2. Elevation of flood-prone structures.
3. Stormwater management/improvement projects.
4. Drainage projects (culverts, channels, retention ponds, detention ponds, etc.).
5. Wet and dry flood proofing of structures.
6. Structural measures (floodwalls, dikes, jetties, etc.) priority has been given to the following

Similarly, in Ohio, acquisition of flood prone structures is a top priority.

Our concern is the implementation of the Building Resilient Infrastructure and Communities (BRIC) program. We were disappointed in the program's priorities and the results from program's initial round of funding. Although the Disaster Recovery Reform Act of 2018 reformed the Stafford Act's Pre-Disaster Mitigation Program to increase the emphasis on pre-disaster mitigation, it did not fundamentally change the eligibility of an array of flood mitigation project types, including traditional property-specific mitigation actions which have been shown to be highly effective over the past three decades. Yet, with BRIC, a program was created with significantly different focus and priorities as compared to the legacy PDM program. In fact, less than 10% of the funding in BRIC was available for state and local mitigation priorities (through the set-aside), with a bias towards large scale infrastructure projects and coastal communities. No competitive applications were selected for further review in FEMA Regions 5, 6, 7, or 8 even though over 567 competitive applications from across the nation were received. In terms of flood mitigation and preparedness, it is our belief that much more priority and preference should be given to state and local mitigation and preparedness priorities in FEMA pre-disaster mitigation grant programs.

Preparedness is Enhanced through Data Sharing and Better Informing the Public

In recent years, the record has been mixed when examining the federal government's willingness and capability to share data to help better inform flood risk.

One longstanding issue is slowly being addressed. The 2016 TMAC report [National Flood Mapping Program Review](#), identified a legacy DHS policy through its Security Classification Guide for the Protection of Critical Infrastructure and Key Resources, which listed dam failure inundation maps as "For Official Use Only." However, this policy conflicts with Congress' Biggert-Waters 2012 National Flood Mapping Program requirements that such areas be provided on Flood Insurance Rate Maps and on publicly-available databases such as National Levee Database (NLD) and National Inventory of Dams (NID). As noted in the report, a Virginia law passed in 2008 essentially requires that all inundation mapping developed for state-regulated dams must be made available to communities and the public. In California, a real estate disclosure law in the area that would be inundated by a dam failure, is resulting in publically available dam failure inundation mapping through a web viewer. ASFPM wants to acknowledge and express appreciation for the US Army Corps of Engineers in being the leader in addressing this issue by making flood inundation maps available for its dams in the National Inventory of Dams, which will be available later this fall. This availability, in turn, will enable FEMA to meet the statutory requirements of the National Flood Mapping Program. Other federal agencies, however, have been slower to embrace this change.

- **We recommend that Congress exercise oversight and ensure that any flood risk data, including all dam/levee failure inundation mapping, developed by the federal government and/or associated with any federal program should be made publicly available.**

Critically Needed Flood Claims Data Availability is Severely Hindered

Until about two years ago, floodplain and emergency managers have been able to obtain flood insurance claims data to support effective enforcement of their floodplain management standards and for use in preparedness and mitigation planning. FEMA had a process to provide claims data quickly to state and local officials provided it was being used for legitimate and authorized governmental purposes.

More recently, flood risk data, and in particular flood insurance claims data, has been made nearly impossible to obtain from FEMA as a result of FEMA's evolving compliance with the Federal Privacy Act and evolving DHS legal interpretations of what constitutes Personally Identifiable Information (PII). These data help inform local mitigation plans, can provide heat maps on claims hotspots, are needed to apply for and administer flood mitigation grants, property disclosure, and are useful in communicating flood risk. They are essential for communities when they update local hazard mitigation plans and for participating in the Community Rating System. Our members report even obtaining authorization to obtain these data is difficult with both state and community legal counsel often advising against entering into newly developed agreements with FEMA that have overly-broad indemnification clauses.

The ultimate result of not being able to obtain these data – especially flood insurance claims data – is communities are less resilient to flooding, and are severely hindered in formulating properly-informed, up-to-date flood hazard mitigation plans. We are concerned that as we see a record level of interest and funding for

hazard mitigation programs, communities will be unable to effectively apply for and obtain grants because they cannot obtain claims data that would inform which properties have suffered repetitive flood losses. And while we believe reasonable safeguards must exist to protect sensitive personal information, the current interpretation and approach is not reasonable. We acknowledge FEMA's difficulty in trying to come up with an efficient and reasonable approach in light of evolving interpretations of PII from DHS, but a middle ground to provide this key data must be found.

- **We urge the Committee to exercise oversight on this issue and if necessary, make the necessary legislative adjustments to allow for data that would inform flood risk such as flood insurance claims or substantial damage determinations, be provided, at a minimum, to state and local officials in an timely and efficient manner.**

Greater Flood-Related Real Estate Disclosure Needed

Although millions of homes throughout the U.S. are at risk of flooding, 21 states have no real estate disclosure laws. This makes it difficult for a home buyer to learn of a property's flood history. These states do not require sellers to tell prospective home buyers or renters whether a property has been damaged by a flood and limiting access to such information prevents people from making smart decisions about where to live. Unfortunately, many homeowners learn of their propensity to flood only after suffering through multiple disasters. The other 29 states have varying degrees of disclosure requirements. In 2018, the Natural Resources Defense Council researched this topic extensively and developed [an interactive website](#) where each state's flood disclosure law can be reviewed. This hodgepodge of state and local policies hinders buyers from making fully informed decisions.

- **We support a national real estate disclosure requirement for a property's flood history. Such a requirement could be tied to a state's participation in the NFIP.**

Preparedness is Successful When You Have Adequate State, Local, Territorial and Tribal (SLTT) Capacity

The federal taxpayer pays an increasing share of disaster costs because we have not built the state, local, territorial, and tribal capacity to manage these risks. States with more capability end up having lower disaster costs and recover more quickly from natural disasters. There are programs in FEMA and other agencies that help build a state's capacity to provide training and technical assistance to communities.

To enable the NFIP to improve accessibility and to provide better technical assistance to over 22,000 communities in the NFIP, the Community Assistance Program (CAP-SSSE) was developed in the 1980s. This program invests in building capability to do floodplain management at the state level in order to assist the communities in the state with their NFIP participation responsibilities. This approach is necessary because it would be impossible for FEMA either to directly assist that many communities or for the program to provide funding assistance to all communities in the program. It is important to recognize communities must meet the NFIP standards and that they do so within the laws and framework that differs in each state, making it even

more important for states to provide that assistance. For a modest investment of around \$10 million annually, CAP-SSSE currently leverages state investments to create and maintain the capability to successfully enable effective floodplain management at the state and local level.

- **We support explicitly authorizing the CAP-SSSE program as part of NFIP reform and increasing the budget to \$20 million annually**

Currently, most state hazard mitigation programs are funded through management costs as part of mitigation grants that have been awarded or won. Should a state be fortunate and have years with no disasters or if the state does not get awarded pre-disaster mitigation program projects, it is difficult to maintain capacity to assist communities with applying for and managing mitigation grants. We propose a new approach, modeled after the CAP-SSSE program, which could be directly funded out of the new Building Resilient Infrastructure and Communities (BRIC) program to set aside \$10-20 million expressly for building and maintaining state hazard mitigation program capability. The benefits are myriad, including providing better and more robust technical assistance to communities for developing and preparing successful grant applications, assistance in mitigation planning, specifically addressing low-capacity or economically-disadvantaged communities flood-related challenges, and better addressing needs of socially-vulnerable populations. This small but effective investment of BRIC funding will reap huge, long-term benefits.

- **FEMA should immediately develop a new cost-sharing program funded out of BRIC and modeled after CAP-SSSE to develop and maintain state capability to administer FEMA hazard mitigation programs.**

Another effective approach is to provide incentives for those states that adopt stronger building codes and land use standards for development, thereby reducing state costs for disasters. Currently, according to FEMA, two-thirds of communities facing hazard risks have not adopted hazard resistant codes and standards, and, in recent years, 30% of new construction has taken place in communities with either no codes or codes that have not been updated this century. Lack of resources is a primary reason large numbers of communities, particularly rural and smaller communities, fail to update their building codes by adopting more recent editions, fully implement the codes they have or their state has adopted, adopt effective land use standards (such as subdivision regulations with provisions dealing with hazards), or modernize their enforcement efforts. Although some existing FEMA programs fund code-related activities, these programs force communities and state applicants to prioritize among eligible projects. We were extremely disappointed that while FEMA publicly claimed that a priority for the BRIC program was to build state and local capacity, projects to do this were limited to less than 10% of the available BRIC funding as part of the state set-aside. As a consequence, only 0.5% of the FY2020 BRIC funding went to code-related projects.

- **FEMA should end limiting capacity-building projects and hazard mitigation planning projects to only the state set-aside portion of BRIC and allow such projects to be eligible through the competitive portion of funding (which was over 90% of available BRIC funds last year).**

- **We strongly support the \$300 million proposed in the reconciliation bill dedicated to the adoption, implementation and enforcement of hazard resistant codes and standards.**

Preparedness is Improved through Research and Technological Innovation

One deficiency ASFPM has noted is that unlike other science and regulatory agencies, FEMA does not have a robust research and development (R&D) capacity. While FEMA does well in certain respects incorporating some of the best available science and technology when applied to the flood mapping program in particular, ASFPM believes that this ability is hampered by not having an internal R&D capacity. This, in turn, leads to not having an intentional R&D agenda. Intentionality is the key.

The Department of Homeland Security Science and Technology Directorate's Flood Apex Program was created in 2016 at the request of the administrator of FEMA to bring together new and emerging technologies designed to increase communities' resilience to flood disasters and to provide flood predictive analytic tools to FEMA, state and local governments, and other stakeholders. Although the program ended in 2020, it had a particular focus on new and emerging technologies, including activities that focus on technology development. For example, one project is focused on using time-series satellite imagery to complement flood risk mapping and visualizations. Another is using high-performing and artificial intelligence to detect physical buildings from satellite images to develop a national inventory of structures in the floodplain. And another was focused on developing low-cost commercial grade flood sensors to improve the nation's flood preparedness and warning capability. In short, Flood Apex had been a productive approach to addressing some of FEMA's R&D needs and could be of significant support to overall community flood preparedness in the future.

- **Congress should ensure that there is a robust and resourced research and development function within either DHS Science and Technology or FEMA to ensure that FEMA's R&D needs are met.**

Technologies to increase resilience against hazards continue to evolve at a rapid pace. In addition to technologies that are incubated through R&D programs like Flood Apex, we have seen tremendous innovation in private industry. For example, today, some of the first flood glazing systems (think glass flood walls/windows). These glass flood systems can make commercial high-rise buildings with a lower level retail areas more resilient and still preserve the function of the building in areas where it might be infeasible to relocate the building. It is important that standards keep up with the rapidly evolving technology. ASFPM is proud to be partnering with FM Approvals and the US Army Corps of Engineers in the [National Flood Barrier Testing and Certification Program](#) to allow for the testing and certification of these innovative products to the ANSI 2510 standard and to serve as a one-stop-shop for consumers to find approved products. As standards are evolving along with technology, it is all the more critical that Congress supports any and all efforts to include these updates standards for federally funded projects as well as being adopted by states and communities. Further, we support US Army Corps of Engineers efforts to replace its water testing laboratory in Vicksburg, Mississippi which is presently used for testing associated with meeting the ANSI 2510 standard.

Preparedness and Mitigation Must Be Equitable

More recently, issues of equity and social vulnerability have been recognized as a critical need to be addressed. FEMA's National Advisory Council's (NAC) [2020 report](#) made the focus on equity a centerpiece of the vision of the future of emergency management. It noted that "For disaster preparedness, mitigation, response, and recovery to drastically improve in 2045, emergency management must understand equity and become equitable in every approach and in all outcomes. The exacerbated impacts of disasters on underserved and historically marginalized communities across the United States showcases existing inequity."

ASFPM supports improvements to FEMA hazard mitigation grant programs, like the Flood Mitigation Assistance (FMA) program, to better address equity and social justice. Increasingly, it is recognized that traditional benefit-cost analysis (BCA) that focuses primarily on damages and losses favors high-value homes and communities and does little to recognize issues of social vulnerability. Further, FEMA's longstanding, restrictive interpretation and treatment of Uniform Relocation Act (URA) assistance can result in inequities for those most vulnerable, especially those who ultimately cannot participate in a mitigation project due to the inability to secure comparable safe, sanitary, and affordable housing. We've made recommendations in the past, such as excluding costs of complying with other federal laws like URA and environmental compliance laws from BCA calculations, which would result in mitigation grants being more equitable and help advance environmental justice issues.

- **We support Recommendations 2020-01 and 2020-22 of the NAC report, which recommends the FEMA Administrator create an Equity Standard, and would encourage FEMA to assess the current process of distributing mitigation funds to determine which policies, regulations, and legislation need to be revised so the outcomes are more equitable.**

While some states and communities do have the staff capacity to navigate the increasingly complicated mitigation grant application and administration process, the stated goal number three of FEMA's current strategic plan – reduce the complexity of FEMA – can lead to more equitable and socially just outcomes. Too often, the complexity of the application process itself can discourage communities from competing for hazard mitigation funds.

Another desirable preparedness goal that would lead to an equitable and socially just outcome is to completely close the flood insurance gap. For some, the cost of flood insurance has already become unaffordable. Over the past several years, an idea gaining traction is a program providing means-based premium subsidies to address flood insurance affordability. ASFPM supports this concept as long as it includes two provisions—that the subsidy is shown separate from the premium so that the policyholder better understands the underlying flood risk, and that the subsidy is paid for outside of the NFIP and therefore by taxpayers versus NFIP policyholders, as the benefits accrue to society at large versus other NFIP policyholders. It seems appropriate that such a program would be inclusive of an equity standard that has been proposed by FEMA's National Advisory Council.

- **We strongly support the \$1 billion in the reconciliation bill to help low- and moderate-income households buy flood insurance and close the coverage gap that leaves poorer households and communities more vulnerable to flood damage. Further, we support the permanent authorization of such a program as part of NFIP reform.**

In Conclusion

Flood preparedness takes a collective effort from individuals, communities, states, federal government and the private sector. True flood resilience is a sustained effort that can take decades to achieve. Yet everyone has a role. We hope that this testimony has provided you with some ideas to consider in how the federal government can assist the nation in being more resilient to flooding.

For any questions, please contact Jerry Hancock, MSFA Executive Director at JHancock@a2gov.org (734-794-6430 ex. 43709); Chad Berginnis, ASFPM Executive Director at cberginnis@floods.org (608 828-3000); or Merrie Inderfurth, ASFPM Washington Liaison at merrie@floods.org (703 732-6070).



**STATEMENT OF JENNIFER PIPA
VICE PRESIDENT
DISASTER PROGRAMS
AMERICAN RED CROSS**

BEFORE THE COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS

September 29, 2021

U.S. SENATE

Good morning, Chairman Peters, Ranking Member Portman and distinguished members of the Committee. Thank you for the privilege of testifying before you today on behalf of the American Red Cross. We commend the Committee for holding this much-needed hearing on "Addressing the Threat of Worsening Natural Disasters."

My name is Jennifer Pipa and I serve as the vice president of Disaster Programs for the American Red Cross. In this role, I oversee our preparedness, response and recovery programs. On behalf of the Red Cross, I want to express our gratitude for this opportunity and am pleased to share our perspective on the challenges we face as a nation in meeting the needs of those impacted by disasters.

As part of the world's largest humanitarian network, the American Red Cross works on the front lines of the climate change crisis every day. We make a vital difference for families and communities in the U.S. and around the world who are coping with the impacts of this crisis, including more frequent and intense storms, heavier rainfall, extended droughts and devastating wildfires.

Disaster preparedness, response and recovery are at the heart of our mission — and these needs continue to grow, particularly for vulnerable communities that are disproportionately affected by climate-related disasters. Through this lens, we see climate change as a worldwide humanitarian emergency — and a defining threat of the 21st century.

My testimony today will describe how the Red Cross is actively working alongside partners at all levels, including the federal government, to execute our mission of alleviating human suffering. This includes our role in the National Response Framework, our national response and preparedness programs, and our efforts every day within communities, to ensure those most vulnerable are best prepared.



The Mission of the American Red Cross and Our Role in the Lifecycle of a Disaster

In May, the American Red Cross family marked the 140th anniversary of our founding. Over the course of our 140-year history, Red Cross has adapted to meet the changing needs of the people we serve, but the mission of the Red Cross has remained the same, to prevent and alleviate human suffering in the face of emergencies by mobilizing the power of volunteers and the generosity of donors. Red Cross volunteers and staff work to deliver vital services every day across America to help individuals, families, businesses and schools be better prepared for life's challenges. Each year the Red Cross responds to more than 60,000 disasters, the vast majority of which are home fires, as well as the recurrences of more extreme-weather events such as wildfires, heatwaves, hurricanes and flooding which we have witnessed in just this last summer. We also collect and provide about 40% of the nation's blood supply; teach nearly 4.5 million people lifesaving skills; and provide more than 513,000 critical support services to veterans, military members and their families annually. Whether the need is large or small, the Red Cross will be there.

Helping make our mission possible are our Red Cross volunteers. Volunteers constitute about 90% of the Red Cross workforce and play critical roles, including preparing and educating families before a disaster, providing aid after disasters and helping families through their recovery. Without these volunteers, we could not respond to the tens of thousands of disasters, both big and small, that occur each year. Whether individuals want to help in their own local community or deploy to large scale disaster relief operations, the Red Cross welcomes new volunteers every single day to deliver our lifesaving mission.

While we are not a federal agency, we have been given certain responsibilities through our Congressional Charter, granted more than 120 years ago. In the ensuing years, the Charter has been amended and in its current form, one of the responsibilities we are charged with is "to maintain a system of domestic and international disaster relief, including mandated responsibilities under the National Response Framework coordinated by the Federal Emergency Management Agency (FEMA)." Under the National Response Framework, we are the co-lead with FEMA for Emergency Support Function 6, which is delineated as Mass Care, Emergency Assistance, Temporary Housing and Human Services. We regularly coordinate and collaborate with FEMA to ensure basic needs such as feeding, sheltering and other wrap-around services are available to any disaster-affected person in need under this response framework. In addition to this role, our services expand to include health and mental health support, direct financial support to families, as well as longer term support for affected households and communities.

The partnership between the American Red Cross and FEMA has proven to be extremely effective in helping Americans get through the initial devastation of a large disaster and on the road back to self-sufficiency. Throughout this onslaught of extreme-weather events in the last decade, the Red Cross and FEMA are in constant communication and coordination on issues such as addressing shelter needs, conducting damage assessments, and supporting requests for transitional housing. In addition, any time the Red Cross responds to a disaster, we also work closely with multiple partners in the humanitarian services community to ensure people impacted by natural disasters get the help and resources they need to get back on their feet.

Preparedness Programs Meeting the Unique Needs of Disasters Large and Small

The American Red Cross offers a suite of individual and community preparedness services including our Community Preparedness Education Program, the Youth Preparedness Program,



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and the Home Fire Campaign. All of which can engage people in-person or online. Through these offerings, we have reached more than 4 million people each year across the United States, U.S. territories, tribal nations and U.S. military installations abroad since October of 2014.

Through our community preparedness efforts, we offer Be Red Cross Ready trainings to assist individuals and families; Ready Rating to support business and organizational preparedness; and Hands Only CPR, which empowers bystanders to take immediate action in the event of a witnessed, out-of-hospital cardiac emergency. These programs aim to reduce perceived barriers to taking preparedness actions by focusing on a step-by-step approach that is manageable, action-oriented and affordable.

Our age-appropriate youth preparedness programs, including Prepare with Pedro (K-2nd grade), and The Pillowcase Project (3rd - 5th grade), instruct students about personal and household preparedness and safety skills, local hazard information and resilience building coping skills.

Finally, our Home Fire Campaign combines home fire safety education with the mitigation of smoke alarm installation to ensure that when a home fire occurs, people can receive the alert to a fire in their home and that they know what to do to stay safe.

Every day, seven Americans die in home fires, but sadly many people remain unaware of the danger of these tragedies as they typically don't receive much media attention. With generous support received through a FEMA Assistance to Firefighters Fire Prevention and Safety Grant, the American Red Cross launched the Home Fire Campaign in October 2014.

Each spring, through our *Sound the Alarm* signature events, the Red Cross rallies our volunteers and partners in communities nationwide to provide a focus on home fire prevention and safety. As of August 31, 2021, together with over 4,600 partners, we have accomplished the following:

- Saved more than 1,000 lives
- Installed over 2.2 million smoke alarms, including more than 11,000 bed shaker alarms for people who are deaf or hard of hearing
- Served more than 2.4 million people through the program
- Completed almost 950,000 home fire safety visits
- Helped households create over 800,000 home fire escape plans
- Provided services in more than 18,000 cities and towns, including all U.S. territories as well as tribal nations.

We also have the free Red Cross Emergency app, in English and Spanish, that allows users to monitor for more than 35 different severe weather and emergency alerts in their community, and other areas that matter to them. The app also provides lifesaving information to help people prepare their families and households and find open emergency shelters. The app features preloaded content so users can access preparedness and safety guidance from Red Cross experts even without mobile connectivity.

Preparedness in the Face of Climate Change

The increasing rate of climate-driven disasters has become an unsustainable burden on those most vulnerable, notably low-income populations and low-income communities of color, the elderly and people with disabilities. With climate change, what was until very recently an episodic series of acute events has now become a chronic condition of devastating climate impacts —



leaving families and neighborhoods without the opportunity or time to prepare or recover effectively on their own. For example, in 2017, families impacted by Hurricane Irma were struck again that same summer by Hurricane Maria. And in 2020, those in Louisiana first impacted by Hurricane Laura, had barely assessed their damage when they were devastated again by Hurricane Delta.

This chronic situation is only exacerbated by the other struggles disproportionately impacted families face daily: a growing level of income disparity coupled with the challenges of affordable housing, limited access to health care, and inequalities in education. These disparities have left many walking a tightrope — teetering above poverty and homelessness even before disaster strikes. Indeed, most often, the people the American Red Cross serves after large disasters are those who had little resources or safety net prior to the disaster. Of the U.S. households we served following a disaster in fiscal year 2020, 63% had household incomes at or below federal poverty levels.

A few other striking statistics that are currently guiding our readiness and planning efforts, across the United States:

- The number of major climate-related disasters has increased six-fold in the past 40 years.
- Climate disasters with costs exceeding \$1 billion (CPI-adjusted) rose from an average of 2.9 per year from 1980-89, to 12.3 per year in 2010-19, with a record 22 events in 2020.¹
- By 2030, we anticipate responding to a significant climate emergency every 10 to 12 days — a near-continuous response situation — leaving those we serve in a chronic state of recovery.
- Recent survey results from FEMA indicate that although about 70% of adults have some emergency savings, nearly half of all adults have no more than \$700 in savings on hand.²

In addition to the ongoing increased pace of disasters, the Red Cross and other disaster response organizations have been challenged with a global pandemic to consider in responding to natural disasters. By understanding the needs created after a disaster and balancing those needs with the ability to keep both the people we serve and our workforce safe, Red Cross worked through alternative housing solutions, and ensured both survivors and our workforce were supported in the safest way possible.

Mission Adaption of Services and Business Models to Better Address the Needs of Vulnerable Communities

In order to meet the needs in the face of increasingly complex and intense environments, technology and innovation are among the top priorities at the Red Cross and have helped our organization remain relevant and effective. A milestone in our disaster response capabilities came with our investment in and implementation of an event management system we call RC View. This platform enables us to augment our own data by drawing upon the almost limitless data sets, models and forecasts from government and nonprofit partners.

We are using these tools to enable our disaster response team to take three important steps. First is to find those who are suffering due to disaster and the intersection of other chronic conditions. Shelter data, rapid damage assessment and call center information are critical tools in finding

¹ NOAA National Centers for Environmental Information (NCEI), U.S. Billion-Dollar Weather and Climate Disasters (2021).

² https://www.fema.gov/sites/default/files/documents/fema_2020-national-preparedness-report.pdf



American Red Cross

those who are suffering, and by integrating this data with social vulnerability data we can provide immediate insights into immediate needs. Second, once we understand the scope of need, we rapidly assess more precisely what those we serve need, where they need it, and when they need it. Through call centers and social media, those who are suffering often tell us exactly what they need. We saw this just this past summer as the communities of southwest Louisiana were reeling from back to back hurricanes, and families were displaced far from their original homes. We were able to react to real time feedback from the call center to both bolster feeding and distribution efforts and more strategically place those resources closest to those in need. Third, we create targeted outreach teams to make sure that those in the most disaster affected and vulnerable areas that we have identified have quick access to Red Cross services in their local neighborhoods. All of this has culminated in the use of technology to better understand when and where high probability/high consequence disasters are likely to occur and to better manage and direct our resources accordingly.

The American Red Cross is working hard to build trust with vulnerable populations. For example, the Latino Engagement Initiative is a program formalized by the Red Cross to better reach vulnerable populations affected by large-scale disasters. The vision is for the American Red Cross to be a trusted, welcomed service provider and organization of choice for the Latino community. By building a standing capability for Latino community engagement within the regional network, the Red Cross is working to build increased trust, greater accessibility to services, enhanced service delivery, and a more empowered and appropriate experience for the people we serve. Likewise, the American Red Cross has established partnerships with trusted advocates in the African American community such as the NAACP, selected historically black fraternities and sororities and faith-based organizations in the African American community.

Building and Strengthening Diverse Partnerships to Better Serve Disaster Survivor

Humanitarian organizations must have a unifying focus and role in serving at-risk and vulnerable populations during times of disaster crisis. The critical points of a relief operation are the initial response which ensures client safety and the recovery program which enables survivors to rebuild their lives. That path to recovery and the barriers to it, is different for each of us and the resources needed must also adapt to ensure we prioritize help for those most vulnerable and for those for whom our equitable care is absolutely critical.

The Red Cross is working together with community leaders, government partners and other relief agencies to address the intricate and disproportionate needs of populations that are impacted. This includes partnering with diverse groups that represent specific communities with unique needs such as access and functional needs, Latinx, LGBTQ, mental health providers, and military service members and veterans. The American Red Cross is committed to investing in our partners to ensure their unique capabilities, demographic focus and inherent racial and cultural sensitivity skillsets are supported and able to provide relief and recovery in partnership with our core mission. The Red Cross values these unique skills and program offerings and understands that recovery requires the work of the whole community to meet the individual needs of people affected by disasters.

We know that to effectively accomplish our mission, we must continue to help everyone left in need by disasters, regardless of their race, religion, gender, gender identity, sexual orientation, citizenship status or political affiliation. At a time of intense polarization in our nation, the Red Cross strives to be an example of the diversity of our communities coming together in challenging

**American Red Cross**

times to help all those in need. As American Red Cross President and CEO Gail McGovern has said, "Now, more than ever, we need to care for one another and reaffirm our commitment to diversity by supporting one another."

While disaster response and recovery activities are always challenging, the Red Cross is committed to working with partners to put disaster survivors first. We will continue to develop internal programs and reach out to dedicated partners to ensure all communities are served during disasters.

Conclusion

The American Red Cross responds to a disaster every eight minutes and works hard to maintain our readiness to respond 24/7. As of this last month, in response to wildfires, floods, hurricanes and our efforts to assist the U.S. military in caring for Afghan evacuees, the Red Cross mobilized nearly 2,900 volunteers. The threat of disasters is increasing, and we must be prepared for the next disaster, not just the ones that have passed.

Again, thank you to this committee for this opportunity to today as you undertake this important examination to ensure Americans are prepared for life-threatening disasters and thank you for allowing the Red Cross to share our perspective and expertise. A recent study published in the *Washington Post* reported that 1 in 3 Americans have faced an extreme weather-related event in this last year, and so many Americans will be facing these endless threats again in the very near future. At the Red Cross, we will continue to fulfill our mission of alleviating human suffering in the face of emergencies and will meet our obligations to provide leadership with our federal and humanitarian partners to address whatever manmade or natural disasters occur. We look forward to partnering with the United States Congress, other branches of government, the faith-based community, nonprofits and for-profits. We are happy to answer any questions you may have.



Addressing the Threat of Worsening Natural Disasters

Statement of

**Fire Chief John S. Butler
Second Vice President**

presented to the

**COMMITTEE ON
HOMELAND SECURITY & GOVERNMENTAL AFFAIRS**

United States Senate

September 29, 2021

INTERNATIONAL ASSOCIATION OF FIRE CHIEFS
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Good morning, Chairman Peters and Ranking Member Portman. I am John S. Butler, Fire Chief of the Fairfax County (Virginia) Fire and Rescue Department and Second Vice President of the International Association of Fire Chiefs (IAFC). I appreciate the opportunity today to discuss how the nation can address the threat of worsening natural disasters.

The IAFC represents the leadership of over 1.1 million firefighters and emergency responders. IAFC members are the world's leading experts in firefighting, emergency medical services, terrorism response, hazardous materials (hazmat) incidents, wildland fire suppression, natural disasters, search and rescue, and public-safety policy. Since 1873, the IAFC has provided a forum for its members to exchange ideas, develop best practices, participate in executive training, and discover diverse products and services available to first responders.

America's fire and emergency service is an all-hazards response force that is locally situated, staffed, trained, and equipped to respond to all types of emergencies. There are approximately 1.1 million men and women in the fire and emergency service – consisting of approximately 300,000 career firefighters and 800,000 volunteer firefighters – serving in over 30,000 fire departments around the nation. They are trained to respond to all hazards ranging from earthquakes, hurricanes, tornadoes, and floods to acts of terrorism, hazardous materials incidents, technical rescues, fires, and medical emergencies. We usually are the first on the scene of a disaster and the last to leave.

National Preparedness in a Time of Greater Disasters

Today the nation faces a larger variety of threats than it has in the past. The nation must deal with the COVID-19 pandemic, an ever longer and more severe wildland fire season, and an increasing frequency in hurricanes and other major storms. Even a national pandemic ultimately affects citizens at the local level, which means the fire and emergency service is on the front lines of all of these threats. America's fire and rescue departments answer to fire and EMS calls; treat and transport COVID-19 patients; staff vaccination centers and administer COVID-19 testing campaigns; provide lifesaving aid to victims of mass shooting incidents; respond to incidents involving new and evolving hazardous materials, including lithium batteries; and rescue the survivors of catastrophic building collapses. In addition, fire and EMS departments can become vulnerable to cybersecurity attacks, including attempts to take down 9-1-1 centers or ransomware attacks.

The past 18 months have provided a real-life stress test for the nation's preparedness system. The nation's public safety and medical staff have performed heroically in the face of these various threats. However, we also have been able to identify unforeseen areas of improvement or new challenges. In many cases, lessons learned from one challenge like the pandemic can be applied to other challenges like wildland fires. As the nation responds to greater risks, we also can address opportunities to improve the nation's preparedness system.

Lessons from the COVID-19 Pandemic

Fire and EMS departments have been on the front line of the COVID-19 response. The nation's fire and EMS personnel respond to 9-1-1 calls from COVID-19 patients; host testing sites and participate in testing campaigns for at-risk communities; and staff and manage COVID-19 vaccination campaigns both through vaccination centers and campaigns to reach seniors in their homes. From this experience, we have some recommendations that can help improve the national preparedness system for future pandemics and other disasters:

- 1) **The Biden Administration should review the National Incident Management System (NIMS) to address long-term events.** The NIMS was designed to address acts of terrorism and

short-term incidents with a duration of a few days to a couple of weeks. The COVID-19 pandemic has lasted since January 2020. The response effort to a major wildland fire, hurricane, flood, or tornado can take weeks and recovery operations can take years. The NIMS must be revised to include these long-term events and how to manage supplies and personnel and rotate command resources, like incident management teams, for these types of events.

- 2) **There is a need to include new partners in incident planning, such as public health authorities.** At the local level, fire, law enforcement, EMS and local emergency management have done a better job since 9/11 at planning and training for acts of terrorism and other large-scale events. In many cases, local hospitals have been brought in for planning for events like active shooter incidents.

However, the COVID-19 pandemic has demonstrated the need to bring in other stakeholders like public health officials to respond to incidents like pandemics. To prepare for major hurricanes, tornadoes, and wildland fires, other critical infrastructure partners, such as utilities, public works, communications companies, and transportation officials should be invited to participate for planning and exercises. These disciplines also need to be trained in NIMS and the principles of the incident command system, so that they can integrate into the incident management team during a disaster. The Federal Emergency Management Agency (FEMA) can set conditions on grants, training, and exercises to make sure that these stakeholders are included in planning. In addition, FEMA may want to work with the Department of Health and Human Services (HHS); the Centers for Medicare and Medicaid Services; the Federal Communications Commission; and other federal regulatory and grant-making agencies in a federal government-wide effort to ensure education and adoption of NIMS.

- 3) **There is a need to review mutual aid agreements and understand the expectations of the parties to these agreements.** During the COVID-19 pandemic, many fire and EMS departments had to quarantine large numbers of their members who were exposed to or infected with COVID-19. Fire departments routinely rely on mutual aid agreements at the local, state, and national level to provide resources as incidents escalate. With the COVID-19 pandemic, fire departments found that not only were they suffering from COVID-19-related staffing shortages; their mutual aid partners were in the same situation. In other cases, there was a struggle for resources as fire departments could not rely on interstate help to fight wildland fires, because fire departments in other parts of the country were responding to hurricanes or floods. In addition, there were concerns that jurisdictions might not provide aid, especially across state borders, because they wanted to retain resources in case of a surge in COVID-19 cases at home. This concern became greatest in fighting wildland fires, where firefighters come from across the nation to live and eat in close quarters in camp facilities for weeks at a time and then return home.

It is important that the nation's mutual aid system be strengthened. One major issue that needs to be addressed is reimbursement. When a fire department sends resources through the Emergency Management Assistance Compact (EMAC), it may take years to be reimbursed due to the bureaucratic processes of the federal and state agencies. The process must be standardized and streamlined so that fire departments can easily file their reimbursement request and track it in a transparent system. In addition, FEMA and the states should look at auxiliary systems like the IAFC's National Mutual Aid System (NMAS), which can complement systems like EMAC. The NMAS allows fire chiefs to request specific assets both within and between states and track them in real-time as they are dispatched to provide assistance.

- 4) **The need to prioritize supplies, tests, and vaccines for first responders.** During the outbreak of the pandemic, fire and EMS agencies quickly used their stocks of masks and protective

equipment. In the beginning, fire and EMS personnel also were not considered priorities for testing. It is important to recognize that fire and EMS personnel are aiding the public in the field, which is an uncontrolled environment. The risk for exposure and infection was extremely high. The IAFC was grateful to see that fire and EMS personnel were listed as high priorities as the federal and state governments rolled out vaccine prioritizations. However, we must remember in the future that public safety organizations are both critical infrastructure and the agencies that protect all other critical infrastructure sectors.

Issues Facing Local Fire Departments

The COVID-19 pandemic and other major disasters have placed an incredible strain on the workforce of the nation's fire and emergency response agencies. Across the EMS field, there are concerns about EMS personnel quitting due to burnout and better job opportunities, while EMS agencies cope with the difficulties in recruiting replacement personnel. In addition, volunteer fire departments are seeing volunteers leave the service, because of fears of infecting families with COVID-19 or losing their jobs if they become infected with COVID-19 during their volunteer work. Restrictions caused by COVID-19 also make it harder for volunteer fire departments to hold recruitment drives or fundraising dinners. Career fire departments also are facing delays in fire academy classes and funding shortages, which are reducing their abilities to replace retiring or departing personnel. In addition, the strain on Western fire departments in responding to major wildland fires restricts their ability to prepare for other threats, like acts of terrorism or pandemic planning.

Fire and EMS departments' expenses have increased. They must buy protective equipment for their personnel; pay overtime for staffing shortages caused by quarantines and infections; and answer increased 9-1-1 calls from COVID-19 patients. In addition, fire and EMS departments are having trouble accessing the equipment they need. During the outbreak of the pandemic in 2020, fire and EMS departments were forced to bid against states and the federal government to buy supplies like personal protective equipment, masks, and gloves. Now the global semiconductor shortage has caused delays in the delivery of ambulances and fire apparatus.

Fire and EMS departments require funding to pivot to address daily changes in threats from active shooter incidents to wildland fires to flooding, while still responding to 9-1-1 calls asking for help fighting fires, responding to traffic accidents, and providing aid to COVID-19 patients and other EMS calls. The American Rescue Plan Act (P.L. 117-2); the Stafford Act declaration concerning the COVID-19 pandemic; and other programs like HHS's Provider Relief Fund have helped replace some of these funding shortfalls. However, the Assistance to Firefighters Grant (AFG) program and the Staffing for Adequate Fire and Emergency Response (SAFER) grant program are important for helping fire departments purchase equipment for responding to all hazards and recruit and retain career and volunteer firefighters. We are grateful for the extra \$200 million provided to each the AFG and SAFER programs during the COVID-19 pandemic and ask that Congress fully fund these programs.

The Importance of Mitigation and Community Preparedness

The increase in the scope and severity of natural disasters demonstrate the importance of mitigation. For the wildland-urban interface, it is important that communities take steps to be fire-safe, including removing hazardous fuels, clearing defensible space around structures, and adopting and enforcing building codes. The adoption of strong building codes can prevent windborne damage from hurricanes and tornadoes, and the use of cedar roofs and other flammable materials in the wildland urban interface. We support FEMA's focus on mitigation both with the Building Resilient Infrastructure and Communities program and the focus on allowing the use of the Hazard Mitigation Assistance to prevent flooding in areas affected by wildland fires. The IAFC recommends that the states adopt the most up-to-date building

codes. We also ask FEMA to hold states accountable for adopting model building codes and to support the education and training of code officials to ensure enforcement of these codes.

In addition, communities should take action to prepare for major disasters. For example, the IAFC manages the Ready, Set, Go! (RSG) Program in partnership with the U.S. Forest Service. RSG helps communities in the wildland-urban interface through local emergency response agencies to become involved in preparation, mitigation, and being ready to evacuate early and safely when a wildland fire strikes. By taking the steps to mitigate and pre-plan for disasters, communities can save lives and prevent economic damage when a natural disaster strikes.

Effective Leadership at FEMA

As the nation continues to face an ever-increasing number of disasters, it is important that FEMA be adequately led and staffed by emergency response experts. On behalf of the IAFC, I thank the committee for acting expeditiously on the nomination of FEMA Administrator Criswell. We also would like to see the committee consider the nomination of Mr. Erik Hooks to be the Deputy FEMA Administrator. It is important that President Biden appoint experienced personnel for the other open positions in the FEMA leadership. For example, the IAFC asks the committee to make sure that President Biden appoints an experienced fire service leader to the position of U.S. Fire Administrator soon.

The Urban Search and Rescue System

One particularly important resource for the national preparedness system is the National Urban Search and Rescue (US&R) system. The US&R system is a unique partnership between the federal government and state and local agencies to provide lifesaving assistance during major disasters. The 28 US&R teams have been especially active in 2021. The Fairfax County Fire and Rescue Department hosts Virginia Task Force 1, which has deployed personnel to the presidential inauguration; the building collapse in Surfside, Florida; Hurricane Ida in both New Jersey and Baton Rouge; the earthquake in Haiti; and a volcano in Saint Vincent and the Grenadines.

The US&R system is the “Swiss Army knife” for many national disasters and teams’ resources are deployed to meet a variety of missions. However, the system requires some specific actions, so that it can continue to operate in an effective manner. For example, funding for the US&R system has remained funded at approximately \$38 million since Fiscal Year 2020. Sponsoring agencies can spend between \$800,000 and \$1.5 million in additional “soft costs” to maintain the teams. States are having trouble providing support for US&R teams. Most of the state funding for the US&R system is sustained from the State Homeland Security Grant Program (SHSGP) and the Urban Areas Security Initiative (UASI). However, without the clear nexus between the US&R system and terrorism and the focus on other priorities for SHSGP and UASI funds, this source of funding is drying up.

We urge increased funding for the US&R program to address these shortfalls and build new capabilities. This funding also would allow the US&R teams to replace current transportation assets, which are nearing the end of their lives. Increased funding also would allow FEMA to conduct three or four full-scale exercises each year to provide training along with operation readiness evaluations. In addition, the US&R teams would be able to improve their capabilities for responding to subterranean incidents like trench or tunnel collapses. Also, the US&R teams would be able to validate and use new technology, such as unmanned aircraft systems or robots to help with search operations and GIS platforms to improve mapping. The IAFC also recommends increasing funds for the US&R system to adequately catalog and validate federal, state, tribal and territorial, and local search-and-rescue teams to better understand the national search-and-rescue capability in the case of the major incident like an earthquake along the New Madrid fault.

Infrastructure Needs

With the focus on improving the nation's infrastructure, I would like to highlight infrastructure needs for the nation's fire and emergency service. In 2019, the National Fire Protection Association (NFPA) released a report describing the *Renovation Needs of the U.S. Fire Service*. This report showed that 43% of stations at the surveyed fire departments are more than 40 years old. It also found that 59% of the surveyed fire departments' stations are not equipped with cancer-preventing exhaust emission control systems. Approximately, a third of the surveyed fire departments' stations did not have access to backup power. In addition, these stations may be affected by mold, asbestos, old ventilation systems and other environmental problems, and they may not have crew quarters for the female fire and EMS personnel that serve in the modern fire and emergency service. Facing constrained budgets, fire departments are unable to upgrade or replace their fire stations to meet modern codes and standards. The NFPA estimates that it would cost between \$70 and \$100 billion to replace these stations. The House Science, Space, and Technology Committee recommended that Congress allocate \$718 million to renovate, reconstruct and construct new fire and EMS facilities in the reconciliation bill. The IAFC asks that the committee support this proposal.

Conclusion

I thank you for the opportunity to address the threat of worsening disasters. Currently, the nation faces variety of threats, including longer wildland fire seasons, a greater number of severe hurricanes and storms, and the continued COVID-19 pandemic. Local fire and EMS departments are at the front line of these disasters. In responding to COVID-19 in the past 18 months, we have learned important lessons that can be applied to improving the national response system overall. The Biden Administration should use this opportunity to review NIMS and make changes to include a wider variety of stakeholders who will be responding to long-term incidents. In addition, FEMA should examine how to bolster the nation's mutual aid systems. We also must look at addressing shortages in the fire and EMS workforce and helping fire and EMS departments to regain strength after the financial, logistical, and personal stress of responding to an historic pandemic, while also responding to other natural disasters. Finally, we must ensure that federal resources like FEMA and the US&R system are staffed with experienced leaders and personnel and fully resourced to meet the large varieties of threats facing America. The IAFC looks forward to working the committee to address these needs.

**Post-Hearing Questions for the Record
Submitted to Sima Merick
From Senator Kyrsten Sinema**

“Addressing the Threat of Worsening Natural Disasters”

September 29, 2021

1. Due to limited Major Disaster Declarations Arizona, many of our local emergency managers can go a decade, or even a career, without being on the front lines of a Major Disaster. While FEMA’s Emergency Management Institute provides educational opportunities for emergency managers across the country, I hear from local leaders in Arizona that they need more resources for continuing education for local emergency managers and their staff. Please describe the continued professional development and educational opportunities available to local emergency managers, and what additional steps can FEMA take to provide additional educational opportunities to ensure local emergency managers are prepared for natural disasters?
2. In your written testimony, you noted that 27 states have developed recovery programs for events that do reach a Major Disaster status. What steps can FEMA and the Federal government take to incentivize the further development of state level disaster preparedness and recovery programs for smaller scale incidents?
3. Recognizing that disaster response and recovery is a shared responsibility between the national and local governments, what can be done at a federal level to better articulate the roles and responsibilities of the federal, state, and local governments to community members before, during, and after a disaster?

The witness failed to respond to these questions at time of printing. If responses are received, they will be on file in the committee offices for public inspection.



International Association of Fire Chiefs

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October 29, 2021

The Honorable Gary Peters
Chairman
Committee on Homeland Security and Governmental Affairs
United States Senate
Washington, DC 20510

Dear Chairman Peters:

Thank you for the opportunity to testify at the September 29 hearing entitled "Addressing the Threat of Worsening Natural Disasters." I greatly appreciated the opportunity to present the fire and emergency service's perspective on this evolving national threat.

I also appreciate the opportunity to respond to the Question for the Record by Senator Sinema. Her question and my answer are below:

Question: If available, would you be able to share information with my office that describes the extent to which the semiconductor shortage is impacting the delivery new emergency response vehicles, and overall impact of these delays on the safety of Firefighters and Emergency Medical Technicians responding to an emergency?

Answer: Across the nation, fire and EMS departments are seeing the delay in the delivery of fire apparatus and ambulances due to the semiconductor shortage. For example, chiefs are seeing ambulances that were expected in February 2021 now having their delivery dates moved to March 2022. We also are aware of brush trucks being delayed by three to six months, which can cause problems for fire departments responding to wildland fires.

This delay in the delivery of apparatus forces local fire and EMS departments to continue to use apparatus that are old and may not have the latest safety technology, which endangers fire and EMS personnel. Also, if a fire or EMS department is facing a growing population, the delay in vehicle delivery means that the department cannot expand to serve its population. So, without new ambulances, there may be a delay in providing EMS service to a growing community. We ask Congress and the Biden Administration to take steps to address this issue.

Thank you again for the opportunity to describe the issues facing local fire and EMS departments as the threat of natural disasters worsens.

Sincerely,

Fire Chief John S. Butler
Second Vice President