

**PHA Disaster Readiness, Response, and Recovery Webinar Series:  
Flooding**

**August 23, 2022**

**Webinar Transcript**

**Jodi Speer 00:06**

Hello, and good afternoon everybody. Thank you for joining us today for the PHA Disaster Readiness, Response and Recovery Webinar Series. Today we will be focusing on flooding. A few housekeeping things really quick. This webinar is being recorded and will be available on the HUD Exchange later. All participants are currently muted, but you are able to post questions in the q&a section. So the chat is also open, however, for the questions, please do put it in the q&a section.

**Jodi Speer 00:56**

And I'm pleased to introduce Dr. Felicia Gaither, Deputy Assistant Secretary for Field Operations in Public and Indian Housing at HUD. Dr. Gaither and her staff have been pivotal in advocating for PHAs before and when disasters strike. This webinar series and training is just one example of that work. Dr. Gaither, go ahead.

**Felicia Gaither 01:22**

Thank you. Good morning, for those in a different part of the country than I am, and good afternoon to others. Thank you all for joining the fifth webinar in our six part HUD PIH PHA Disaster Readiness Response and Recovery Webinar Series. This webinar series directly aligns with HUD and White House priorities to equitably improve the nation's disaster recovery, and building long term inclusive resilience to the impacts of climate change, particularly for historically marginalized communities. Given some of the recent natural disasters and feedback from PHAs around the country, many of you, we launched this webinar series as a resource to help prepare PHAs prior to potential events, so that an equitable inclusive recovery as possible. We know that vulnerable communities bear the brunt of natural disasters, and our goal with the webinar series was to ensure your PHA is ready to respond to, and recover from, any disaster that may impact the families you serve and the properties you are responsible for. In our first four webinars, we discussed hurricanes, extreme temperatures, wildfires, and tornadoes. In this webinar, we will be talking specifically about the impacts and risks posed by floods and flooding. Flooding is the most frequent and costly natural disaster to impact the US each year, with approximately 90% of all Presidentially declared disasters involving some type of flooding. Due to this, it's vitally important that your PHA prepare for the potential risk. To get an on the ground PHA perspective, today you we will have shared experiences from the former executive director of the Galveston Housing Authority, Mr. Harish Krishnarao, on his PHA's readiness, response, and recovery from Hurricane Ike back in 2008. We appreciate the experience that Mr. Krishnarao will share with us, and hope that with the information that is shared you will find something that will help you in preparing to be ready, to respond, and recover from any disaster that comes your way, particularly any flooding impacts. We will look forward to your participation in today's webinar and hope that you will join again for the final, the sixth, webinar in this series which will focus on building fires. I will turn it back over to Jodi. Thank you all.

**Jodi Speer 04:15**

Thank you. As Dr. Gaither mentioned this webinar today is part of a series. We've already had hurricanes, we've covered extreme temperatures, wildfires, and tornadoes, and today we'll be discussing flooding. This webinar series introduces disaster readiness, response, and recovery planning. We also wanted to let you know that the PHA Disaster Readiness and Preparation Guide is currently being updated and will include sections on roles and responsibilities. communications, short

and long term housing options, recovery timelines, funding strategies and financial management. The new guide along with a series of one page fact sheets are expected to be released in a few months.

**Jodi Speer 05:15**

So today's full agenda includes a quick overview of flooding, roles and responsibilities related to disaster management. We'll have a case study for Galveston in 2008, cover disaster readiness, hazard mitigation and resilience, disaster response, and disaster recovery. We do have a lot to cover today, so we will be checking the questions in the q&a section and any that don't get covered throughout we will have a chance to cover at the end. presenters for today's webinar include Brittany Kelly, who has been a leader in disaster recovery with the state of South Carolina's Emergency Management Division. Brittany, now with Cohnreznick, supports multiple state and federal grant recipients in disaster recovery and grant management. Fred Tombar is a nationally recognized expert in housing and disaster recovery, who has been appointed to advise presidents, HUD and Homeland Security secretaries, and governors during his over 25 year career. Zach Usher currently serves as the Acting Deputy Director for Individual Assistance at FEMA. At FEMA, Individual Assistance manages and delivers humanitarian relief programs for disaster survivors. Zach has worked in emergency management for 20 years, working in a variety of program areas including mitigation and recovery. And Harish Krishnarao is the former executive director of Galveston Housing Authority, who provided leadership to the community and to the housing authority during the flooding of 2008. In the webinar, today, we will share some ideas and best practices to get you thinking about developing or enhancing an action plan for responding to flooding, both when flooding can be anticipated and also for unpredictable events. Except where indicated these are suggested best practices and not HUD mandates.

**Jodi Speer 08:00**

Just to talk about flooding real quick. Floods are the most common natural disaster in the United States; about 75% of all Presidentially declared declarations are associated with flooding, whether or not it's the primary disaster. Now there's a bunch of different types of floods here, and I probably don't need to read through each of them in full, but just to know some of these are common, we are familiar with them, and some we may not think about. Flash floods are as they sound, they happen quickly and can cause ice or debris jams they can cause levee or dam failures. River floods are when the river levels rise above their banks or the edges of the main channel. Storm surges and coastal inundation typically occur near land from tropical storms or hurricanes, however, this type of flooding can also occur far inland. Burns, fires, and debris flow, this occurs where vegetation has been burned away and the soil properties have been altered, and the ground can't absorb the moisture and so therefore, it's runoff instead of being absorbed where we would normally anticipate. Ice and debris jams can occur along rivers, causing a backup flooding. And dam breaks and levee failures, this can occur with very little warning and can be pretty devastating.

**Jodi Speer 09:51**

So today we're going to be hearing about the flooding that happened in Galveston, Texas in 2008. This was a result of Hurricane Ike, but we're gonna be talking today not about hurricanes but about the flooding. So Hurricane Ike made landfall at Galveston Island at 2:10am on Saturday, September 13, 2008, with 110 miles per hour sustained winds. The landfall of Ike resulted in extensive storm surge flooding, wind damage and rainfall flooding across all of Harris and surrounding counties being hurt

including Galveston. And this was the highest storm surge recorded on Galveston Island since 1915. Rainfall average between 10% which is a 10 year flood and a 1% 100 year frequency. The two day rainfall totals up to 20 inches and Galveston lost power for up to two weeks. All of Galveston at that time declared uninhabitable. At this point I'm gonna turn it over to Fred Tombar to talk to us about disaster readiness.

**Fred Tombar 11:34**

Thank you, Jodi. Flooding, like other natural disasters, it is a disaster where preparation in advance impacts how well you respond and you recover. And there are certain things that you can do to get ready for a flood event. Critically important that you identify actual and potential needs by performing a risk assessment, that you develop partnerships within your community., you take the time to organize your resources and systems, undertake your recovery planning and readiness activities. And then most importantly, educate those who need to know and conduct training for any possible event.

**Fred Tombar 12:38**

Keep in mind that their roles and responsibilities during a disaster and flooding event are divided among others, all those in the community and the housing authority itself. You as a housing authority certainly have a lead role and responsibility when it comes to working and coordinating with the local municipality. The municipality is the lead, your local emergency manager will have the lead for your community, but you as a Housing Authority will need to coordinate. As we always say landlords and residents both have responsibilities and rights in disaster, but their responsibilities are to be laid out as well.

**Fred Tombar 13:43**

The state and federal government have roles and responsibility. At the state level there's going to be the state Office of Emergency Management which will coordinate across the various communities within a state that are impacted but will communicate on behalf of the government in the governor's office with the federal government. And at the federal level you have FEMA, which takes the lead in all presidentially declared disasters, but HUD obviously is there as an important partner to assist housing authorities when disasters, when flooding happens.

**Fred Tombar 14:27**

Vitally important is that you conduct a risk assessment to identify where your vulnerabilities lie as a housing authority. It there is a tool that HUD recommends that housing authorities use where you can identify where you have risk, not just for floods, but for other disasters. FEMA's Hazus program, which is linked here, provides that resource for you. You need to know which buildings you have, which structures in your portfolio, that are most vulnerable and have a plan accordingly. As a best practice, HUD encourages PHAs to conduct a Physical Needs Assessment every five years. There are tools available for you in conducting these needs assessments, linked here on the slide, and we'll make these slides available to everyone following this training.

**Fred Tombar 15:56**

Understand that insurance is your key line of defense in a flooding event, and it is important that you do an assessment to ensure that you are adequately insured. In fact, HUD has a specific requirement

under your Annual Contributions Contract that your PHA has all of the public housing developments adequately insured. And what do we mean by adequacy? as you can see here, your ACC HUD Form 53012 section 7 lays out the insurance requirements, and specifically there is a requirement that you have enough insurance to replace any damaged developments. And so, it is important that you evaluate your insurance policies on a regular basis to determine the adequacy of your insurance. I also call to mind HUD regulations at 24 CFR 965 which govern public housing insurance requirements, and we have tools here linked and HUDs website, which provides some FAQ's for information that will assist you in determining the adequacy of your insurance policies. In addition to your property and casualty insurance, for a flood it is required that you have flood insurance for any properties located within the 100 year floodplain. However, HUD recommends, because of the frequency and the size of flood events that have been happening recently, HUD recommends that any properties you have that are in what is called the 500 year floodplain are also insured with flood insurance. There is an ability to determine whether your properties are in a high risk zone or not and if they will need flood insurance. Even if your properties are just outside of the flood insurance, given the impact of the floods on a high risk zone, given the amount of damage that we've seen recently with regard to flooding events, it is wise that you consider ensuring those properties. FEMA has flood maps that you can go to and specifically put in your properties, the addresses or coordinates for those properties, and then determine if in fact, your properties are within the 100 or 500 year floodplain. There is a link here with a tutorial on how to read flood maps. And one thing to note is that HUDs Office of Policy Development and Research has done research on communities, and organizations, and even individual families that recover best from disasters, and those that are adequately insured do the best in terms of recovering. It seems logical and makes sense, but the evidence is proven.

**Fred Tombar 20:19**

Here we just give an example of how flood maps will look. If you notice, this is the city of Houston and you're able to, if you were in the city of Houston, determine specifically if your properties were in the flood zones by looking at the flood map, using the flood tool that I referenced on the previous page.

**Fred Tombar 20:57**

Again, another view of the type of images that you see when in when going to the FEMA website to view your flood maps. It's critically important that you develop partnerships within your community in advance of any flooding event. Public housing authorities are not the only entities within the community that will be impacted if there is a catastrophic flooding event and coordinating with others who are there and can support your residents, especially those who are most vulnerable, will only help you to respond best to an event. It's recommended that you conduct joint meetings and drills, and even after action reviews with your partners, to identify where gaps are in your planning and how those gaps will be filled should there be an event. It also is recommended that you consider establishing a sister agreement with PHAs, both within your area and also outside of your area, to provide some supplemental operational support should you need it. Because in an event, it's likely that your staff will be impacted as well and you may need that supplemental operational support

**Fred Tombar 22:42**

In terms of resources and guidance development there are a few best practices for flooding. One, in terms of your people, you want to train them in emergency response and crisis communication, get

them prepared for what natural event will look like and what their responsibilities will be. In terms of your facilities, you want to communicate what the expectations are for your residents. If they had to shelter in place, if they had to leave, where and how they're supposed to leave, and identify where there might be sheltering opportunities for people who are displaced and have no place else to go. Your systems, make sure that they're all in working condition, your communication systems, identify how you're going to communicate with staff with residents and with landlords. And then your equipment, make sure that all the things that you use in terms of radios, smartphones, all of the supplies that you need, flashlights, generators, and making sure that you have sufficient fuel and perhaps even an agreement with supplier to supplement your fuel for your generators, should there be a prolonged power outage.

**Fred Tombar 24:22**

Planning for how you will continue your operations should there be a flood is important as well. Successful response really depends on whether you have a clear understanding of what the roles are going to be at the time of an event. And this goes for recovery as well. In terms of PHA leadership, you need to identify what the chain of authority and responsibility for decision making will be. It may be that the Executive Director is called away to the city's emergency or county's emergency operations center, and so who then will be making calls of what type. know which staff are expected to show up and to be there, in spite of the fact that there's an event that may be impacting their family, and what their roles and responsibilities will be. And then how your community partners will be involved. And if you have that supplemental agreement with another public housing authority, when and how you will initiate that agreement to have their support for the work that you're going to be doing after the flooding event. What's important is that you not just develop a plan, but that you test whether that plan makes sense, and the best way to do it is through training and exercises. We've all been through fire drills in school and offices and understand how important it is, should there actually be an event. Such holds true for disasters, and in particular flooding. It's important that you coordinate and connect with your local emergency manager. They are required by the Department of Homeland Security to have regular training events, and exercises. And so you as a housing authority can plug into that and be a part of the larger community effort to prepare for disasters. You should communicate again with your staff the roles and responsibilities that they will have when an emergency, when a disaster happens. You want to practice your response exercises with your staff and challenge their roles during it, because they'll be challenged during an emergency, and understand what those challenges will be. Training your residents, they need to know, if there's flooding, what's expected and especially those people, those residents who are living in some of the developments that have been identified as the more vulnerable of your properties. You want to regularly review and update your procedures, have a scheduled time when you will identify whether your plans that you had in the previous years still hold true and need to be updated in any way. One recommendation is for those that are vulnerable to flooding from hurricanes that, in advance of a hurricane season, certainly to look at your plans and determine if they're adequate. And then you want to also regularly maintain and check your equipment and supplies. Have that on a cycle as well that is timed and know who's responsible for that and have that laid out clearly in your plans.

**Fred Tombar 28:38**

Communication is critically important as well. You want to communicate regularly with all of your involved partners, your staff, your residents, and landlords. And, where possible prior to a flooding event, you want to increase the likelihood of successful communication, communicating in advance will increase the likelihood of successful communication during the event. There's some best practices that we recommend. One is that you maintain current contact information on your residents and all the key community partners. For your residents in particular, you want to have a backup contact, emergency contact, and know that their information is updated on a regular basis as well. You know, people change cell phone numbers, and so make sure that in advance of an event that you've updated that information. Hold meetings in advance of a potential event. Post fliers in places where people are going to see them as they come in and out of your buildings, both residential and administrative buildings. And then you want to use electronic means, send information via email. For some folks, we know some older residents may not use email as much, and so posting the flyers and perhaps even sending things via mail should be employed. And then publish information in any residence newsletters that you have and on your PHAs website. And then finally, should you have social media platforms, especially post-event when displaced, social media is a good way to communicate to folks. Okay, I'll turn it back to Jodi and Harish.

**Jodi Speer 30:58**

Thank you, Fred. We will now have an opportunity, we touched briefly on what happened in 2008 in Galveston, Texas, we are excited to welcome Harish Krishnarao. As I mentioned, he's the former executive director of Galveston Housing Authority and provided leadership during this flooding event. Harish, can you tell us about this event and about any preparation that your housing authority did to be ready for the impacts of flooding?

**Harish Krishnarao 31:32**

Sure, thank you, Jodi. Good afternoon, everybody. So I want to walk you all back to 2008, September 13. Galveston is a medium sized city with a population of, at the time was about 50,000 plus. And Galveston is a rectangular city, east to west it has about 11 miles and north to south it's about one to two miles at any given point. And back in 1900 one of the biggest storms hit Galveston Island, and most of you probably have heard about that, and more than 6000 people died during that time, that is considered as the biggest disaster of the century. And subsequently, US Army Corps of Engineers built the 18 foot seawall on the south side, protecting the island from any direct threat from a hurricane. So then fast forward to 2005, Hurricane Katrina hit the New Orleans area so the whole country was preparing for the emergency management and so on, modifying it and so on. So Galveston, as an island city, we were also prepared in a very similar manner. And we thought our preparation was absolutely fantastic. Prior to the hurricane, prior to the flooding, we obtained multiple pre-procured contracts with different types of vendors. We had an outstanding relationship between the public housing agency, the city of Galveston, and the Galveston County. And Galveston County is the southeast of the city of Houston, so whenever we do an evacuation, we have to go through city of Houston. So we even made pre-prepared arrangements with Harris County, so that the Galvestonian's could be evacuated ahead of time before anybody else would. Sure enough, on September 10 through 11th, we evacuated approximately 3000 people between the public housing agency, the city of Galveston, and the Galveston County. The Galveston Housing Authority itself had a combined units of

about 3000 units, including public housing and Section 8 units. But we did coordinate with the city and the Galveston County, and we evacuated those that wanted to leave with prearranged shelters at Texas A&M and also University of Texas in Austin. Everything worked perfectly. So we identified PHA staff, city staff, and the Galveston County staff, triaging people and we would obtain their information. And our submission ratio on the 50058 was about 100%, so we knew exactly who evacuated from the island, where they went, and we had a coordinator that was placed with them. And as far as the city residents and the Galveston County residents, we were able to obtain as much information as possible. So, on September 12, we thought we did everything perfectly, everything went very well. And they also downgraded the hurricane from Cat 4 to Cat 2, somehow that gave a lot of overconfidence to people, and so some of the people that wanted to evacuate they ended up staying on the island. So right now, I'm going to save the readiness side of it. And the readiness side of it, it was almost picture perfect, class one effort in terms of evacuation, in terms of the way we displace people. And in fact, some of the residents that went to Texas A&M, they were actually having a big party there, some of them were getting their hair done, some of them were playing music, and some of them were played piano and things like that. So everything was just about perfect until September 13th morning, and I guess we'll come back to this a little bit later, when Jodi talks about the post-readiness.

**Jodi Speer 36:11**

Thank you so much. And yes, we will have an opportunity to hear more about the, the impacts, and then what happened following. At this point, I would like to turn over to Brittany Kelly, who will talk with us about hazard mitigation and resilience,

**Brittany Kelly 36:32**

Thank you, Jodi. So let's just start with the basics of the definitions of hazard mitigation and resilience. So what is hazard mitigation? It is the effort to reduce loss of life and property by lessening the impact of disasters. And then what is resilience? Community resilience is generally defined as the ability to adapt to, withstand, or rapidly recover from a disaster or catastrophic event. And this is very important, because sometimes I think they can be used synonymously and that there are two different definitions here. One being more bouncing back and how to recover from, and one mitigating potential impacts on the front end. So why is mitigation important? Well, I think what we're all learning and we're all experiencing is that disasters can happen at any time in any place. The human and financial consequences of these disasters have been hard to predict, and the number of disasters each year has continued to increase. And then finally, as we're going to talk about, and in this webinar about different types of federal assistance, federal assistance is not always available. So what can we be doing to mitigate for the future? Well, what we see is the mitigation process and lifecycle is continuous. So starting with risk assessments, right now looking at what are your vulnerabilities? What can you potentially see today, looking at your facilities, looking at the homes that you're responsible for, the residents that you're responsible for, and saying, where are my vulnerabilities today? Talking about flooding, where has it flooded previously, because usually once water navigates an area, it's easier for to do it again. And then you can start the planning process. Okay, so what types of steps can we be taking today, or what projects would you like to potentially look at budgets for in the future, that that would have the best, or the most, impact to the areas you're responsible for. And then finally, we start looking at what mitigation grants are out there to be able to help supplement the funding for you to be able to be more proactive mitigating in the future. And this is continuous, you can look at multiple

different types of perils, not just flooding for this, but today we'll focus just on mitigation and flooding. So just honing in a little bit more on the risk assessment piece of that lifecycle. A thorough risk assessment is the foundation of mitigation planning and access to potential grant funds, as we alluded to, but it is actually a requirement for certain grant funding opportunities to have a mitigation plan. It is essential to assess the vulnerability of people, buildings, and infrastructure to natural hazards. Again, especially flooding once water navigates or is impeding in an area, it is more likely to happen again. So looking at the profile of the events and et cetera is very important. Today, we're going to high level talk about the Unified Hazard Mitigation Assistance and we're really just going to talk about the opportunities of three potential grant programs that you may be eligible for. So on in the next slide, we'll talk about first HMGP: Hazard Mitigation Grant Program.

**Brittany Kelly 39:56**

So this funding is only available following a major disaster declaration, and we will get into more with Zach Usher and FEMA about what a major disaster declaration entails. But after every presidentially declared major disaster declaration, there is funding set aside for the hazard mitigation grant program. And even if you were not impacted by that declared event, you can still apply for the funding of the grant with mitigation projects and opportunities. Again, these slides will be available to you and it is hyperlinked here, the state Hazard Mitigation officers, where you can see who is the state Hazard Mitigation officer for your state, to get more information about this for current opportunities for HMGP or the future. They also, and to clarify, the HMGP grant program is funded by FEMA. Similarly is the second one, the Building Resilient Infrastructure and Communities or the BRIC Grant Program, is also funded by FEMA and your state Hazard Mitigation officer would have more information on this one as well. But this one is annual, it is nationally competitive, so in certain aspects it can be a little bit more competitive to potentially be awarded funding. But depending on the characteristics of what you're looking to accomplish, the project that you're looking to recommend or apply for may be a prime candidate for the BRIC Grant Program as well. And then finally, looking at the FMA or the Flood Mitigation Assistance Grant Program. The FMA is a program actually funded by the National Flood Insurance Program or NFIP, and as its name implies, it's focused on flood hazards. So among the things that funds can be used for to acquire and demolish or elevate flood prone properties, especially as those with repetitive losses. You can really take a mindful and efficient use of these funds to remove properties from areas that routinely communities can lessen the flood risk for the outline properties, as well as elevating existing properties to reduce the risk of flooding. The one thing when it comes to eligibility for Flood Mitigation Assistance funding, is that the grant funds must be used in a special flood hazard area. And so again, this is hyperlinked on this slide once it's available for you, but it's something to be mindful of if you're already in a special flood hazard area, or you have properties or facilities that are, this might be a prime grant for you especially as we're talking about flooding today. So one thing that I did not mention on the previous slide but is important is that most of these grant programs do have a cost share, usually not less than 75%, 25%. So 75% is what these grants usually will pay for and then you will be responsible for 25%. However, there are opportunities, like what is provided here, where you may be able to offset that cost share that you will be responsible for. Or if you're not looking to go through any of those grant funding opportunities, you can look at these potential funding types and opportunities to look for funding some of those mitigation projects or activities- whether it's something small, like replacing maybe certain walls or using different types of drywall that is more

resilient if it's a repetitive area that gets flooded., or maybe it's a much larger project, where you're looking to elevate a facility or a residence. And I'll turn it back to Fred.

**Fred Tombar 43:56**

Thank you, Brittany. When responding to an event, the first thing that you want to do after the flooding has occurred and you've ensured the safety of everyone is to get out and assess the impacts of the flood on your overall operations. Your PHA should look to see how your facilities have been impacted, where staff and residents have been impacted and understand where they are. If they've had to relocate making sure that, as I said previously, that everyone's safe. And then there is a plan in place for how you're going to communicate with them going forward. You also want to review the risk assessment that you did previously, and adjust based upon any impacts that you had that weren't accounted for. And then resources. access to resources is going to be a challenge after any flooding event, and so prioritizing your resources, both human resources and equipment for critical needs is important. Again, you want to assess the impact on your business operations. Again, first and foremost, making sure that your staff are safe and protected. You then want to gauge the impact on your essential functions and communicate those impacts to any of your partners who are impacted, most critically here would be your residents. You want to follow any of the recommendations that are coming from your emergency managers and other health and safety officials, and certainly mayors and county executives as they have an overall assessment of the impacts on your community. then begin to mobilize your staff according to the plan that you had set in place, reach out to the partners that you identified previously, and any others that might emerge as willing partners to help you in in response to the disaster. Again, you want to identify how your office is how your operational facilities have been impacted, not just the buildings, but also any equipment that you might need in terms of operations. Take pictures of the damage, this is going to be important for insurance purposes. And should you have to remove flooring and other types of materials, keep a piece of it just to establish the quality of the materials that you had in your facilities that were damaged.

**Fred Tombar 47:44**

Checking on your residents is going to be important. You need to conduct regular wellness checks on folks to find out how they're doing, especially those people who are most vulnerable, your elderly and folks who have disabilities, will certainly be most impacted. And then keep in mind the population that you serve there may be people, because of their income and the amount of residual funds if they have, who weren't able to heed all the warnings to evacuate especially in a major event, they just may not have had the resources and simply had to go to a shelter or some folks decide to shelter in place. So accounting for and checking on those people in getting them to safety is important. One of the things that you should keep in mind is that if there is sustained damage that will displace people over time is that people will move around, and so you need to have a way of checking in and knowing where people are as they as they move around. You want to be able to communicate whether the utilities are available in units that may not have been damaged ,that people think that they can return to and want to return to. Especially if it's a summer storm and electricity is out, and there's no way to cool the units, you don't want people returning to a heated unit that they can't cool. Keep in mind that access to certain supplies like ice and blankets if it's a winter storm- and I know it sounds unlikely but Hurricane Sandy was just that, was a wintertime storm. It was followed by a big nor'easter just a couple of weeks later, and so having blankets and being prepared for either heat event or a cold weather event that

may follow is important. And should your residents need to be transported, having that connection with partners who can help you with transporting them to safety, from where they are to where they need to be, is important.

**Fred Tombar 50:42**

When assessing the impact on your housing stock, keep in mind the responsibilities that you have with regard to those units. Folks who were residing using a housing choice voucher, the owners and residents of those units should contact the PHA to notify them if the unit was damaged, and certainly if it's uninhabitable. Your responsibility here as a PHA is to go out and conduct an inspection to make sure that those units meet HQS, or NSPIRE once its implemented, to ensure that those damage units actually are habitable, are still decent, safe and sanitary. If you learn from that assessment that it's uninhabitable, if the landlord can make repairs to the unit properly and pass inspection, then fine you can continue to house a residence there and continue your HAP payments. But should the unit be uninhabitable and extremely damaged, then you have to abate the HAP contract and then move the residents to another facility. There is an exception though to keep in mind for those homeownership voucher units, you can continue to make payments on those units even if HQS isn't met.

**Fred Tombar 52:31**

In terms of rehousing, it is important that you communicate with residents, work with your state and local government to be sure that people know what the housing needs are going to be for your residents. Understand that they are eligible for every type of assistance that any other disaster victim is eligible for. At times, people try to make a distinction for residents who are either on a housing choice voucher or in a public housing unit and say that they are HUD's responsibility or, HUD and that arm of the federal government needs to support them, when in fact they are eligible for FEMA assistance and any other type of assistance that anyone in the community would be eligible for. Some of the things that you can do in terms of rehousing is, prior to disaster, again, develop partnerships with your local and state emergency managers, with Red Cross, with different shelter operators, and make sure that they are accounting for and taking quick care of your residents. You want to coordinate with nearby public housing authorities, some of them may have available units where they can shelter some of your residents. Certainly those that are displaced may need a place to stay longer term, and so a local PHA that wasn't impacted could support you in that way. You want to coordinate also to arrange for transportation, as I said previously, to get folks out of harm's way but also to get them to a place that may be even more further away after the event, because of the impact of a flooding event. And those transportation companies can help you in providing buses for your residents that could be used temporarily for shelter but also, most importantly, get them to safe housing locations.

**Fred Tombar 55:04**

In terms of public housing, some of the things to consider when trying to rehouse your residents is that you can use unimpacted community space as temporary housing. If there are vacant public housing units, certainly you can relocate residents who have been impacted, whose units were impacted by the flood, to those vacant units. If there is extreme damage, you can apply for tenant protection vouchers for residents that are in units that would be uninhabitable for some time. Know that oftentimes PHAs will have a disaster preference, and your residents may be eligible for a preferential treatment at that PHA because of their being displaced by the disaster. And again, underscore that they are eligible for

FEMA's Transitional Shelter Assistance, which will provide temporary housing for any displaced disaster victim. For those folks who are being housed on Housing Choice Voucher. Again, you need to terminate the HAP contract if the unit is uninhabitable, and issue a voucher to move to a unit that would pass HQS. There are options for the residents, should they be displaced for some time and they would prefer, they can port their voucher to another area. And like the displaced public housing residents, they also would be eligible for FEMA's Transitional Shelter Assistance. One of the things to keep in mind as a PHA who was impacted by floods is that your operations may be challenged. And so HUD recognizes that and consequently, there are waivers that are available to you, you should work with your local field office to understand which of those waivers might be available to you. But there's a link here at the bottom of this slide that will provide you some more information, and really a worksheet that will help you to determine which of these waivers might be necessary for you. Know that HUD will consider these waivers on a case by case basis, so you have to request and HUD will consider, but certainly your local HUD office is there to help you in any way they can after a flooding event. I'll turn it back to Jodi and Harish to tell you a little bit about how Galveston responded after the flooding

**Jodi Speer 58:40**

thank you, Fred. That's a lot of information and steps to take following a disaster, and interested now to hear from Harish. Harish, can you tell us about what it was like during and just following the storm and flooding, what your response was like?

**Harish Krishnarao 59:02**

Sure, Jodi. Earlier I mentioned the preparedness was just about perfect, there's nothing we could have done any better. But this is where what, you know something that Mike Tyson mentioned reminds everybody, you can do all the planning you want to do but once a heavyweight boxer punches you in your nose, all your plans are out through the window. So that's exactly what happened to us. On September 13th morning Hurricane Ike, even though they had downgraded that to Cat 4 to Cat 2, there was tremendous amount of surge and it flooded most of the island. Earlier I mentioned the island is a rectangular island, and the island is divided between the north and the south by the street Broadway. Everything north of Broadway got flooded, somewhere between two inches on some places to about 14 feet on the other side. The 18 foot seawall that was on the south side did exactly what it was supposed to do, stop the surge from coming from the south. So we can do all the planning, however, Mother Nature has a way to do what it needs to do. So the surge came to the back of the island, and back of the island is at zero feet from the main sea level, and all the water came from the north side and flooded the island. So just about everything that Fred talked about, every line is so critical that it can be a game changer. So even though we kind of went through them in the form of bullets, but just about every one of those things is so critical in actual practice. In our case, the day after the storm, the whole city was flooded, and basically nobody from outside could come in unless they were escorted by the police or security staff, and so on. In terms of the public housing agency, as well as the city, as well as the county, all the business operations were gone. The satellites were down, there was no internet, and most of the staff was displaced. And most of the staff live on the island, so not only that they also got impacted in addition to the residents. And those of the residents that evacuated ahead of time, they were safe and they were sound. But the ones that stayed back, about 25% of the people ended up staying back on the island, and that is where the real disaster started occurring. So some of the key staff, we started doing the risk assessment. But often there's a joke around industry that says, you

know, we are a four letter agency that starts with F, but let me tell you, FEMA and US Department of Housing and Urban Development have been the biggest supporters for us. And not only that, just about every housing authority within a 200 mile radius from Galveston they stepped up and they send supplies, they sent staffing, they sent temporary staffing, and they were willing to work with us in terms of any assistance that was needed. So earlier, Fred talked about trying to have these prearranged agreements with the local agencies, that that basically saved Galveston Housing Authority. The folks from San Antonio sent multiple trucks of food and other supplies. Same thing with Houston Housing Authority, same thing with many other housing authorities. It was absolutely remarkable, it brought some of the best things from some of the people that was out there. So in terms of the business operations, everything was gone. So there was no satellite, there was no phone, there was no television, and then staff were displaced. And then fortunately, what we did was we were able to coordinate with FEMA, and we were able to triangulate three satellites on the Galveston Island specifically for disaster response. This was remarkable. And so we were able to get some key operations going.

**Harish Krishnarao 1:03:31**

Earlier, I mentioned that we evacuated 3000 People from the Galveston Housing Authority. What I did not mention was in the previous decade, the housing authority had purchased a large supermarket and converted that into our operation center. So our housing authority offices contain about 100,000 square feet of space, and also several acres of outdoor space, it was open. So we converted our whole building into a disaster management center. This was the housing authority, but the people that were impacted were three groups of people, public housing residents, both Section 8 and housing choice voucher, the City of Galveston residents, and also Galveston County residents. And not all of them were LMI population that some of them were super, super rich, some of you may know that Galveston has five billionaires on the island, but the wealth did not matter to the storm. Everybody was the same thing, everybody lost everything. So the only place they could get internet was the Housing Authority location. So we actually ran a fiber optic line from the mainland, and we set up a cat file network so that people could come and use the housing authority location for communication. We procure about five or six large screen television so that we would have multiple TV networks setup on the housing authority location. Again, we triage between the city staff, housing authority staff, and the county staff, with the housing authority staff taking the lead, to provide the temporary housing to people, and FEMA also sent their representatives to work with us. So collectively, it was incredible. In fact, we used to have an indoor basketball gym within the building, and we converted that into disaster management center where our staff could work with the general public. And then fortunately for us, our HUD came to our rescue. They mobilized some inspectors from all over the country to come to Galveston Island to do the HCV inspections, both the drive by, and the drone inspections, and the physical inspections where they could. But most of the units were not habitable, so for that reason we were also trying to protect the inspectors. So in terms of the resident assessment, most of our public housing and Section 8 residents we knew exactly where they were, and we knew day by day what they were doing, and so on. The Housing Choice Voucher was relatively easy. We terminated the previous voucher and issued them new voucher, and we coordinated that with some of the other housing authorities, including Harris County, Houston, San Antonio, and few other housing authorities, where we could coordinate with them to find a suitable unit. So that was relatively easy, we were able to take care of that very immediately after the storm. Public housing residents, the family units, 100% of the family units got flooded. Some of

the senior high rise, the first and the second floor got flooded, but the rest of the floors were fine, so we were able to clean that out and try to bring in the residents within like two to three weeks period or so. So in terms of the response, I consider this in four different stages. One was the immediate emergency response to take care of the residents as quickly as possible. And the second thing is, you know, within three to four week period as to what happens. And the short term response is between the four weeks and about six month period, and the intermediate is between six months to about 24 months, and the long term is way beyond that.

**Harish Krishnarao 1:07:52**

So in our case, for the emergency response, we coordinated extremely well with the city, county, FEMA, HUD and everybody. I mean, I can't say enough about that. If any one of them don't cooperate with us, the whole thing will collapse. So when Fred talks about trying to have the prearranged agreements with them, I can just speak enough about that. So in our case, because we were all working in from the same place, so we were able to assist the residents as quickly as possible. So we took care of the Housing Choice Voucher residents very quickly. And the public housing residents, it took a little bit longer because the public housing family units were totally impacted. But still, we coordinated with, as Fred mentioned, with some of the other housing authorities with the available units, and also a temporary housing stock, and we worked with them. But the real issue occurred, there were many previously unassisted residents, but from the island, and they were LMI population. And similarly, there were a large number of LMI population in the county, again, that they were not previously assisted. So it took it took a while, and again going back to Katrina days in 2005, it took HUD and FEMA about six months before there were some temporary housing opportunities came available. However, after Ike within a two week period FEMA and HUD was able to execute an interagency agreement to assist with some of these residents. And at that time, there was no one to take care of the unassisted residents from the city or the county and HUD then requested us to see if we could step up. Prior to the disaster we had a total staff about 60 people, but within that four week period we ramped up the staffing from 60 people to in excess of 200 people, with temporary staffing from other housing authorities and the US Department of Housing and Urban Development, as well as FEMA. So we started doing the resident assessment, we were able to track down nearly 100% of all the residents both in HCV, as well as the public housing families. And one of the things about my background is, I'm also a structural engineer prior to joining the housing authority, and I'm a registered professional engineer, we had an extremely strong GIS programmer on staff with our IT department. So as a result of that, we were actually able to geocode all the 50058 and track 100% of the residents all over the region. At the at the end of every day, we knew exactly where they were staying, what they were doing, and so on. However, we were not so successful with the city residents and also the county residents, and I know we were trying to develop that as we went along. So at the time, HUD Secretary Shaun Donovan used to say, it is like flying a 747 while you're flying a 747 to repair the engine. That is what the Housing Authority had to do during those six week period immediately after the storm. So we did the inspections of all the housing, we did the inspections are all the HCV units. Most of the HCV units in the Galveston County was dilapidated, so we had to relocate the residents to outer regions. And obviously, those outer regions, the cost of living is much higher. So we were able to go to HUD and we were able to obtain modified payment standard representing the affordability of that particular zip code, we almost came up with the zip code based payment standards. And then we inspected all of units, and most of them were, they were not able to salvage them. So ultimately with the 2000 combined public

housing units, we ended up losing about 569 public housing units and the rest of that we were able to salvage, and we were able to bring residents back as quickly as possible.

**Harish Krishnarao 1:12:44**

Again, I think the way it worked out was, none of these things could have been possible except for the working cooperation between HUD, FEMA, and some of the public housing executive directors and staffing from within the region. So as it is listed in your presentation, we had a total population of about 4000 assisted people within the Galveston Island, but however, more than 100,000 LMI population was displaced from the region. So it took a while. And that's why I mentioned about the intermediate term and the long term. And most of the residents were housed within that intermediate time space. However, there were a lot of systems that went apart and failed, and so on. So this is a long, ongoing process. So there are some handful of projects that are still ongoing, even though it's more than 10 years after the storm, but that is still being done. And so this is in a nutshell as to what happened with the response the Galveston Housing Authority did after the flooding of 2008. In summary, if you look through your slides, every one of the bullet points can make or break the response.

**Jodi Speer 1:14:13**

Oh, thank you Harish. Wow, that's huge impacts and really did highlight the power of partnerships. We will have an opportunity to hear a little bit more about the recovery and the next steps from here after we hear from Brittany and Zach. So I will turn it over at this point to Brittany to begin talking through disaster recovery.

**Brittany Kelly 1:14:45**

Thank you, Jodi. So again, just starting at the basics, what is recovery or what is disaster recovery? Well, I think the National Disaster Recovery Framework probably defines it best, and it's those key capabilities necessary to assist communities affected by an incident to recover effectively including, but not limited to, rebuilding infrastructure systems, providing adequate interim and long term housing for survivors, restoring health, social and community services, promoting economic development, and restoring natural and cultural resources. The National Disaster Recovery Framework also encompasses looking at recovery as a whole community effort. So seeing across the multiple stakeholders that are going to be responsible for, and a part of, that disaster recovery process. It's really important for everyone to think about who all of your potential stakeholders are, especially in a blue sky, day so you can develop those and foster those relationships and understand the power of working together to navigate the disaster recovery process. The NDRF, or National Disaster Recovery Framework also talks about the core recovery principles. And while I'm not going to read each one out, I think it's important again, just to get the wheels turning thinking about recovery on blue sky day to be able to understand, what are those principles? What can we be doing today? What is it important that you're thinking about and have at the forefront of the mind when you're navigating the recovery process. And then this is probably, while it's not many words on one slide it's one of my favorite slides, I think it's very important to be thinking about- roles and responsibilities and role clarity. So three things to remember when it comes to responding to an emergency or major disaster. I'm actually gonna start at the bottom, is that the federal entities are your resources, there are potential resources that may be available in response to recover from any potential threat or disaster. The state's there to support you, the state is there to provide and to help navigate liaise the resources as needed, especially when Zach

with FEMA goes through the disaster declaration process, there's gonna be a lot of conversation about what the state is doing to request that disaster declaration. But the most important thing to be taking away is local primacy- you driving your recovery, you being the advocate, you seeking information, you working through what resources may or may not be available. And you communicating at the local level with your city's municipalities, your counties or parishes, to advocate and voice your unmet needs for the PHA, for the residents, and if there's damages or you need additional assistance through the recovery process. but the state support and federal resources cannot be there to potentially support you if you're not communicating and advocating at the local level. And at this time, I will turn it over to Zach Usher with FEMA to go over disaster declarations.

**Zach Usher 1:18:19**

Great. Thank you, Brittany, and good afternoon to everyone. My name is Zach Usher, I currently serve as the Acting Deputy Director for the Individual Assistance division at FEMA. And we describe that as the part of FEMA where humanitarian relief programs are managed and delivered. Next slide. I'm going to touch on, to start with, the Presidential disaster declaration process. And a couple of notes to keep in mind as we have this talk over the next couple of minutes. One is that there are two distinct types of disaster declarations that are issued in certain circumstances by the President of the United States in their role as the chief executive over the executive branch. There are what are known as emergency declarations, you can think of it as the initial phase or the more moderately sized phase of an emergency situation. And then there are major disaster declarations, which is a full scale disaster declaration. And depending on the scale of the declaration, there are different types of assistance, generally different dollar amounts that could potentially become available to assist a variety of recipients with disaster aid. And I'll talk about that a little bit in our next slide. As noted, we have two phases when we look at disaster declarations. Emergency declarations, as noted on the slide here, generally intended to supplement an activity that is taking place within local, state and tribal governments in response to a particular event, a particular hazard, a particular risk. And in contrast, a major disaster is declared when the President, as advised by data collected through a process that we'll talk about and commented on by FEMA, when the President determines that effective response is beyond the capabilities of both local governments and state, tribal, or territorial governments.

**Zach Usher 1:20:38**

In the process of assessing the need for a disaster declaration, we think it's worth outlining the process by which data is assembled in order to inform the review and ultimate recommendation that goes from FEMA to the President for a disaster declaration. And so what you see outlined here are some of the major process steps in the wake, of or immediately following, a disaster incident. As noted by Brittany, the emergency management framework in the United States is really built around a concept of local primacy, whereby events are intentionally managed and responded to at the local level of government, if possible. Included with that is the assessment of damages. So what this means in practical terms is that after a disaster occurs, local emergency managers, local emergency services officials are almost immediately as they assess the impacts on people and infrastructure, and respond with lifesaving and life sustaining resources, there is also a process going on to document the scale and impact of the damage. That information, which is really continuously collected in the days and sometimes weeks after an event is then aggregated at the next level of government, which might be a county, which might be a parish, and then in turn that is aggregated at the state level by state emergency management officials.

As this is happening in the wake of an incident, as local damage assessments are taking place as well as damage assessments and aggregations at the county and the state level, state emergency management is in contact with counterparts from FEMA from the Federal Emergency Management Agency. In particular our FEMA staff, who are located at one of our 10 FEMA regional offices. So we have 10 regional offices, each of them assigned a certain number of states, tribes, and territories to coordinate with, and in the wake of an incident those FEMA officials in the regional offices are in very close contact with their state, tribal, territorial counterparts. Discussing potential impact, potential needs for federal assistance, and in some cases, determining whether what's known as a joint preliminary damage assessment is going to be conducted. A joint preliminary damage assessment is where you'd have FEMA officials joining state officials, as well as local representatives, to review data, to review damages in the field, collect data. All of it, feeding up to an overall assessment of the impacts of the disaster or disasters to inform a request, ultimately from a state, tribal, or territorial elected official to the federal government for federal assistance. Next slide. In terms of the concepts of disaster relief and what's available from the federal government, and specifically from FEMA, it's important to note that by design and by statute and regulation, the FEMA programs are supplementary to other aid or assistance that might be available. And I think of particular interest to this audience is the notion of insurance, as the first line of first line of defense is how it's described here. From a FEMA perspective what this means is, we cannot provide federal assistance through FEMA if there is a benefit or an insurance remedy available from another source to help assist with the impacts of a particular event. And so in the process of distributing federal disaster assistance, through all of our programs, there are various requirements for documentation, because by law FEMA has to assess and establish that, as an example, insurance is not already available from another source. And so that is a principal component of planning for disaster responses is knowing in advance that there will be requirements for being able to provide, in the case of a public housing authority, information on insurance coverage, the nature of that coverage, documents to support that. So from a preparedness and readiness standpoint, having duplication of those documents, having a redundancy or a system that's able to produce that, perhaps even if their physical infrastructure at a public housing authority is damaged, that's a key way to potentially expedite disaster recovery in the engagement with FEMA, in the event that federal assistance is available.

**Zach Usher 1:25:32**

Types of assistance that can become available through the major disaster declaration process, we'll touch on a few of them here. One is FEMA's Public Assistance Program, this is a disaster assistance program to provide financial assistance for public infrastructure that's been impacted, damaged, or destroyed by a disaster event. And so in the context of this webinar, and for you all from this audience, that can include the facilities of a public housing authority pending and in contemplation of certain eligibility requirements that apply. FEMA also has an Individual Assistance Program. This is disaster relief that is oriented at individuals and households that have been impacted by a disaster event. Similar to what I touched on in the previous slide, there is a requirement for FEMA to assess whether insurance is available to address needs caused by the disaster, FEMA funds can't duplicate things that are available through insurance. But unfortunately, particularly when it comes to the hazard we've been talking about today of flooding, there is a relatively low coverage rate across the country, generally speaking, for flood as a hazard. And so it's not uncommon for disaster declarations related to flood for us to see low insurance coverage for individuals and households, in which case they may need and

require more assistance from FEMA. Individual Assistance from FEMA in addition to repair and replacement funds for housing. Other programs that can be funded include disaster case management, crisis counseling, assistance with what's known as our disaster legal services program, disaster unemployment assistance, as well as other programs that are sometimes developed and administered depending on the needs of a particular state, depending on the needs of particular community. Brittany mentioned already mitigation grants and the Hazard Mitigation Grant Program, which is an important post disaster funding resource to try to improve the resiliency of infrastructure as well as residential structures. After a disaster event those funds become available in connection with a disaster declaration. And then, last but not least, an important part of the recovery resources made available from the federal government through the Department of Housing and Urban Development, through HUD, are Community Development Block Grants for disaster recovery. And what we typically see on more significant or more catastrophic disaster events is, the Congress consider a supplemental appropriation for block grants through this program. Now, importantly, and we've talked about this in some earlier versions of this webinar, as the Congress looks at the need for supplemental appropriations it's important that any impacted infrastructure be accounted for in the formulation of that supplemental appropriation. So for public housing authorities, well, one thing we'd like you to take away from this session today is the value and the importance in in the wake of a disaster event, reaching out to local emergency management, county emergency management in your jurisdiction, to ensure that they're aware of the impacts of a particular event on your facility. That's important to ensure that it's represented in the disaster assessment process, that goes into the consideration of declaring disaster declaration. It's also important so that that'd be represented in any considerations or discussions from the Congress regarding Community Development Block Grants and other purposes. Next slide. I mentioned FEMA Public Assistance, and we think that's one of the more relevant authorities and potential forms of assistance for public housing authorities in the wake of a disaster event. Noted here in bold, public housing authorities are an eligible applicant if there are eligible damages and costs. This is a cost shared program, so typically the Federal shares not less than 75%. In some disaster events that can be adjusted by the President, and sometimes is, but as a as a matter of course, typically not less than 75% Federal. And that cost share can be paid in a variety of ways by the state, the applicant, or a combination of both. Next slide.

**Zach Usher 1:30:05**

In terms of eligibility, as is typical with any federal grant program, there are a variety of eligibility requirements that any potential funding request will be evaluated against. You see some of them noted here, in terms of there needing to be a clear effect from the disaster event itself that caused the damage. There are some geographic requirements. There are some legal responsibility requirements, meaning an applicant for grant funds must have a legal responsibility for the maintenance and repair of that particular facility. And there has to be, or it cannot be under the funding authority of another federal agency, meaning there can't be another primary way to address the unmet need or the damages. Next slide. In terms of public assistance in the categories of work, this is a distinction that's made within the program to separate what's we think of as shorter term work, labeled emergency work, things like debris removal, from more permanent infrastructure work, which you can think of as permanent construction work and things of that nature. Including under, you'll see Category E there noted Buildings and Equipment, that's really where public housing authorities are potentially going to be looking to for repair dollars in terms of permanent work or construction to restore a damaged facility to

its pre-disaster state. Next slide. Just to give you a little bit more specificity under these types of work, we talked about, I described it as short term and longer term, debris removal, sheltering, costs associated with health and safety, those are things that we consider shorter term measures, or emergency protective measures or, or debris removal, as you see noted here. Obviously, there's a different level of documentation and planning that's necessary to access and perform those types of activities, in contrast to more we call the permanent work. And you see here, Category E, in terms of damage to buildings, repair to damaged facilities, roof repairs, things of that nature. As with any grant program, I'll emphasize this, there are a variety of eligibility requirements and review requirements attended to accessing funding. And so a very important part of the process in accessing this funding is an iterative, back and forth conversation between FEMA staff with the Public Assistance Program, and applicant, and local and state government representatives as they assess what's eligible for repair and the methods for providing that funding. Next slide. Documentation is key. This won't be a surprise to those that are grantees for other federal programs, the importance of records, the importance of being able to provide for evaluation for reimbursement, copies of contracts, procurement policies, proofs of payment. What FEMA does is after a disaster occurs, if there's a major disaster declaration that includes public assistance, is assign staff who will work a portfolio or a group of facilities that are applying for reimbursement, and work with them through the eligibility review process, explain which documents are necessary to be evaluated for reimbursement. But these are some examples of the types of things that are looked at to assess eligibility.

**Brittany Kelly 1:33:44**

Thanks, Zach. And so moving into emergency procurement, and just to answer one of the questions that I saw come up, but also it ties directly in with public assistance documentation or just documentation in general, whether you're looking at HUD funding or FEMA funding, is utilization of the Capital Funds Program, or CFP. Capital funding, you cannot use that in conjunction with public assistance, it would be considered a duplication of benefits. So one of the things that must be very clean, is that in response to any type of disaster or imminent threat, when you're in the response phase, is not using your Capital Funds funding to pay for things that may be eligible for the FEMA Public Assistance Program. Again, that's why it's important right now to be understanding what the rules and regulations are, and policies of the different types of federal funding or resources that may be available to you, so you can be prepared to appropriately budget and plan for it and in the response to recovery phase, so that you can maximize your federal resources if there is a presidential declaration. Along those same lines, let's talk about emergency procurement. We'll also need to be understanding the laws and regulations, really just 2 CFR 200, understanding when it's appropriate to use emergency procurement, for both anything that's HUD funded or FEMA funded. And then when you need to move into properly procuring any of those services, or goods, or resources that you may be using in the event or after an event. So that might be for debris removal. It might be, especially with flooding, any type of pumping, or if you need to quickly have muck and gut and have certain areas torn out. We understand you need to do what you need to do to protect you, your staff, your people, but it's also very important that you understand again, planning now on our blue sky day, so you're prepared for being very strategic in your response and recovery phase to maximize eligibility of funding. So here, like we talked about, the webinar will be available to you, it is hyperlinked right here, the procurement handbook for public housing agencies, and 2 CFR 200 Procurement does apply to both HUD and FEMA when it comes to funding. Secondary is environmental reviews, please make sure you're aware of the

environmental regulations at 24 CFR Part 58. This is specific to HUD. These specific regulations and understanding what may need to, or the appropriate steps and actions that may need to happen, in order to continue eligibility of HUD funding. But there are also environmental review processes, navigating the FEMA grant programs. So being mindful of that while you're navigating both types of federal resources, it will be very important. And I'll turn it back to Zach to close out for some of the FEMA resources with Individual Assistance.

**Zach Usher 1:36:53**

Thank you, Brittany. So talking about Individual Assistance. As I noted as I came on the microphone a few minutes ago, we think of this as the humanitarian relief that FEMA administers in conjunction with the disaster declaration. And in looking at the need, and the process by which FEMA makes a recommendation to the President as to whether an individual assistance declaration is warranted, there are a number of criteria that are examined. All of it data that is collected through that process I described a few minutes ago of information collection taking place at the local level, and then aggregation to the state level, informed by conversations with emergency management officials at each of those levels of government. That includes taking a look at the state fiscal capacity, so from an economic standpoint, what is the fiscal capacity of a jurisdiction that's being impacted by an event? What are the estimated impacts and what is the relationship to the pre disaster capacity within the state? There's a look from a human impact perspective at casualties, considerations of what the profile, from a demographic perspective, is of the community or the population that's been affected by the disaster. So looking at things like, and considerations of, poverty rates, those that are on public assistance programs, other factors that give a sense of the demographic nature of the communities impacted. There's a look at the impact to community infrastructure. So things like impacts to the healthcare infrastructure and community, roads, bridges, the impact on community infrastructure like water treatment and wastewater treatment plants. So what you can see here is, the work that's done in aggregating the impacts is important because no single factor here is the gateway to an individual systems declaration. Instead, what is outlined here is an attempt to account for, really all of the significant dimensions of how a natural disaster or disaster event may impact a community and in turn a state, tribe, or territory. And all of that is considered in what ultimately FEMA recommends to the president, who then, as noted earlier, makes the final determination of whether Individual Assistance will be made available through a declaration. Next slide. I mentioned briefly the Individual and Households Program and the individual households focus for much of FEMA's disaster assistance. This form of assistance, where FEMA provides aid directly to individuals and their families, can be accessed through a variety of different mechanisms. Typically, what we see now and for the last two to three years, is that nearly 80% of disaster survivors who were registering for disaster assistance through this program, through the Individual and Households Program are doing so either online or through the FEMA app. So about 80% of the disaster applications now come in online. And other ways, though, that are made available for registering for disaster assistance include through our telephone call centers at 1-800-621-3362, and other mechanisms. Often in the wake of a disaster, if there's an individual assistance declaration, FEMA will work with the state, tribe, or territory to set up what are known as disaster recovery centers. Those are physical sites where individuals can walk in and have a conversation with FEMA staff, as well as often other representatives from the federal government, state government, and often voluntary organization or faith based organization partners, to learn about resources, to sign up to receive FEMA assistance, and be evaluated for FEMA assistance. Another way

we try to get people signed up, for those who are interested in registering for disaster aid, is through our Disaster Survivor Assistance Teams. These are these are teams that essentially canvass impacted neighborhoods on foot, knocking on doors, visiting shelters, visiting other locations where survivors might be located, equipped with technology that allows them to register survivors for disaster aid on the spot or, in some cases, update their case with FEMA to try to move them through the assistance process. Next slide.

**Zach Usher 1:41:39**

Other forms of assistance that can become available, I touched on these briefly, include a number of programs that are delivered in conjunction with a state, tribe, or territory trying to address other unmet needs of disaster survivors. So one that I'll highlight is the Crisis Counseling Program, this is administered by FEMA, in partnership with our colleagues at the US Department of Health and Human Services. And often this is collaborating with a state, tribe, or territory's Department of Health to stand up a crisis counseling program where crisis counselors are often hired out of an impacted community, trained, and then spend time working with disaster survivors, with children in the impacted area, to try to share with them and teach them coping skills and to provide crisis counseling in the wake of the trauma of a disaster event impacting the community. So that's a program that will typically run for about a year after a disaster event, and as noted in conjunction with, most often the State Department of Health, although it can look a little bit different depending on particular jurisdiction. Thank you.

**Brittany Kelly 1:42:54**

Thank you, Zach. So moving on to other disaster assistance. So first, we're going to talk a little bit about voluntary agencies. They're there at the beginning providing emergency food, shelter, clothing and medical needs support. And they're there at the end to provide resources to address unmet needs after all other mechanisms have been exhausted. So right here we do have a hyperlink to the National VOADs website, where you can see a lot of, and just to clarify with VOAD is it's Voluntary Organizations Active in Disaster. So they're disaster recovery, disaster response specific nonprofits that have a gamut of resources that may or may not be able to assist some of your unmet needs, whether it is the sheltering, whether it is the mass feeding, whether it's rebuild or muck and gut. There's a lot of potential resources out there, and then there's also the ones that are already in your local community today. And I'll turn it over to Fred to talk about CDBG-DR.

**Fred Tombar 1:44:03**

Thank you, Brittany, following certain large scale disasters there may be, for recovery from your flooding event, an appropriation from Congress for CDBG Disaster Recovery funding. These dollars are made available through CDBG grantees either at the state, county, or local level, at the discretion of the HUD Secretary. But whatever the jurisdictional grantee is for your housing authority, they have a responsibility to engage you to identify any unmet needs that you have as a housing authority related to the impacts of your flooding disaster. HUD has, in developing its guidelines for coming up with an action plan, directed these grantees to identify specifically what housing authorities have remaining as unmet needs. But you all should take advantage and engage directly. Make sure that you are not overlooked as the grantee is planning for how they will support the needs that remain in the community. What is prioritized in the use of CDBG funds, the needs of low and moderate income individuals, and so your housing authority and the people you serve are the target population in terms of unmet needs.

But realize though, there may still not be enough resources to cover all of the unmet needs that remain. One thing in keeping with what Brittany and Zach were pointing out earlier, that there is remaining for you, on any FEMA PA grant that you may receive or mitigation grant that you may receive, a cost share. These CDBG dollars can be used to help pay for that cost share that you have as a housing authority, as an applicant under the FEMA PA or mitigation program.

**Fred Tombar 1:46:54**

Sometimes, there are flooding events where there isn't a Presidential disaster declaration. And so keep in mind that there may be funds available to you from a number of sources. Brittany's already talked about the voluntary agencies that are out there. Sometimes local governments will allow for a reduction in taxes and property taxes, or if you have a pilot you may be able to get that pilot adjusted, because of the impact of the disaster. The state housing agencies will sometimes have a disaster relief fund locally, there may be a disaster relief fund that's set up by your organization. And then there's also the possibility of money from housing trust funds. HUD also has a capital fund emergency and natural disaster fund. You can apply to HUD for those funds, but recognize that those funds are in very short supply and are allocated on a first come, first served basis each fiscal year. Note that these funds are only available after considering insurance, just as it would be in the case of any other type of federal assistance, insurance is your first and primary source resource for disasters. And so you can use the links that are here to find out how you can apply to this public housing capital fund emergency fund for assistance, should you need it following flooding disaster.

**Jodi Speer 1:49:02**

Thank you, Fred. And now we have a few minutes left to hear from Harish about how the recovery was following the Galveston flooding. Go ahead and turn it over to Harish.

**Harish Krishnarao 1:49:21**

Thanks, Jodi. There were a couple of questions while we were talking about, and one of the questions was how do you geocode the 50058. If you look at the data points in the 50058, it has the address information. So we were able to index that so we knew exactly where they were before and where they moved to. And the second question that was asked was the extremely vulnerable population, can they be evacuated ahead of time? Yes, that is exactly what we did, but however, we could not force anybody. So there were a handful of people that were hold out, and so they ended up staying there. So there were a few things that came about while we were discussing, a lot of our events were intermingled between the wind event, windstorm, as well as the flood. That's something that, when you do the property damage documentation, do the best you can to do so. And the second thing that was talked about was the unmet needs. So immediately after the storm during our emergency response, we were able to assist lot of previously assisted population. However, previous previously, unassisted populations were left behind. And so a lot of agencies came together, and then also many philanthropists came and funded unmet needs program. And we actually had housing authority staff, the city staff, and the county staff, that sat on the table and then worked with the people to provide the unmet needs. Now, in terms of the long term recovery, we ended up losing 569 family public housing units out of 1100 total public housing units. And at that time, the replacement cost was not required. So the amount of flood insurance that we received was very minimal compared to what was needed. And then often what happens is, you know, the funding is to replace it to the previously existing condition.

However, the reason all these things got impacted was because these units were built in the 50s, 60s, and probably the latest was 60s. And that was not in compliance with the current flooding code, flood current day issues, and each year FEMA increases their base flood line. And so we needed to do something that was going to last for the next 30 to 50 years, and so we needed to think outside the box on that.

**Harish Krishnarao 1:52:06**

So we use a portion of the CDBG funding and CDBG Disaster Recovery, and then we also combined with the local housing tax credits, and we were able to look at the multifamily mixed income types of developments so that would be meeting the housing needs of the community in the long run. But what happens is, when the CDBG-DR is funded, normally it is funded for the impact on the community by the LMI population. So the technical reasons behind the CDBG- DR compared to the expectations of the local community, there appears to be a gap. So managing the expectations of the local community is a big challenge. Earlier I mentioned this flooding indiscriminately took people out, the LMI population, the high income population, and just everybody. Because of our quick stepping through the recovery process, some of the LMI population were able to receive the necessary assistance. Because of the gap in the assistance for the alumni population to the other, there is some expectations that leadership has to manage. That is one of the biggest challenges. And the second thing is the CDBG funding is generally dependent on the communities comp plan and the comprehensive plan. So I suggest all the executive leaders to focus on that way ahead of time, before flooding, before any disaster, when some of these things are published for the comment period, to make sure the public housing authority needs are included in that document, so that when the funding is appropriated by the Congress, it is properly addressed. That's exactly what happened in our case. Immediately after the storm when the CDBG-DR was allocated, HUD allocates the funding, it goes to the individual state, and the state in terms of different mechanisms they distributed the funding. So by the time the funding is allocated, by the time it goes to the recipient, there's multiple steps. So managing that is very critical, making sure that the public housing residents are addressed. And so this was a big challenge within Galveston. It took a long time, but fortunately with the cooperation of FEMA, HUD, and the state of Texas, we were able to rebuild most of the 569 units, except for a few scattered site units that are still being worked on. And then there was also some philanthropic dollars, and we were able to go meet with each of the families and talk to them to see how the community at large can prepare for what is likely to happen in the next 50 years. And then by creation of this mixed income families, mixed income neighborhoods, so that way, integrating the neighbors with the larger neighborhoods and so on. It was a fascinating process and a once in a lifetime experience. And sometimes I wish, and I don't wish that on anybody, but if there is a disaster, or if there is a flooding, some of these things would have to be considered. So all in all, nearly everything is back to what it should be and it should be prepared for the next probably four or five decades or so. Jodi?

**Jodi Speer 1:55:55**

Thank you so much for sharing your experience with the flooding in Galveston from beforehand, your readiness, your immediate response, and the recovery process. It's so important for us to be able to see all of the pieces actually in place. So thank you so much for being with us today. We have just a couple of minutes left. So I have a slide here for federal grant program resources, and then there's another slide following this for other disaster management resources. I'm going to just leave this up

while I'm going to see if there's any unanswered questions. One question that came up is which natural disasters are most deadly to people of color? Which natural disasters are most deadly to people who are below 30, 50 and 80% of federal median income? And what we do know is, and I think we talked about this earlier, is natural disasters are not selective, right? They do impact across the board, but what we also know is that the low income population and people of color do tend to be disproportionately impacted. And so I don't have specifics for a disaster type that's more deadly to people of color or to people under the federal median income, but we do see that those populations are impacted. And the federal resources do try to prioritize the communities most in need. So I don't have an answer to specifically which is more deadly, but we do see across the board that these populations tend to be more impacted. And then there was, can you clarify when you can use Capital Funds after a disaster and when you cannot? And Fred, that's a question for you.

**Fred Tombar 1:58:13**

Okay, so you can use Capital Funds. But here is the challenge. If you use Capital Funds, currently, FEMA interprets that as a form of federal assistance that would trigger a duplication. So be advised that should you use Capital Funds, and later want to be reimbursed for those expenses that would otherwise be eligible under the FEMA Public Assistance Program, you would not be able to get those reimbursements because of the current interpretation that that would trigger duplication of benefits. And so HUD recommends that you use another source of funds that the housing authority has access to that wouldn't be considered federal funds, like rent proceeds, and those types of funds.

**Jodi Speer 1:59:22**

Thank you, Fred. So as we mentioned previously, so on this slide federal grant program resources, and on this slide we have additional disaster management resources. All of these that you see underlined in blue, all of these are links hyperlinked, and once these slides are posted on the HUD Exchange, you will be able to access all of these links to find more information on each of these topics. I think we answered all of the questions. So I will just close with, first of all, thanking our presenters today. Thank you, Zach from FEMA, who joined us, and Harish again for sharing your story. Thank you for Britain to Brittany and to Fred for presenting. You'll see on the screen here, we do have one more webinar in this series coming up. We'll be discussing building fires on September 6, and you can, on this link here, you can see there's a link for where all of the previously previous webinars are posted, and you can watch those if you missed them. So thank you for joining us today. And have a great afternoon.