

Speaker 1: [00:04](#) Welcome to Prep Talk, the emergency management podcast. Find out what you need to know about preparedness, get all the latest tips from experts in the field, and learn what to do before the next disaster strikes. From the Emergency Management Department in the city that never sleeps, here are your hosts, Omar Bourne and Allison Pennisi.

Omar Bourne: [00:27](#) Hello everyone. Thank you for listening. I am Omar Bourne.

Allison Pennisi: [00:30](#) And I'm Allison Pennisi.

Omar Bourne: [00:32](#) And you are our listeners, and as always, we thank you for joining us.

Allison Pennisi: [00:36](#) Yup. We want you to come back as often as you can, so feel free to add Prep Talk to your favorite RSS feed. You can also follow us on social media.

Omar Bourne: [00:44](#) Another great episode for you guys. Today, we are going to be talking about risk, and not the type that you typically imagine.

Allison Pennisi: [00:51](#) That's right. We're talking about natural and man-made hazards. So this ranges from severe weather to pandemic flu. Now both can affect the population and where we live, but luckily, there are experts that are taking action to build stronger, safer, and smarter through what emergency managers like to call hazard mitigation. But before we dive in, it's time to give our listeners the latest hot topics in the emergency management field.

Speaker 4: [01:15](#) Here's your Prep Talk situation report.

Allison Pennisi: [01:19](#) All right, it's time for the situation report. Let's get started. The City of New York recently made its 2019 Hazard Mitigation Plan website available for public review. Now, for our listeners, the Hazard Mitigation Plan outlines goals, objectives, and specific actions New York City can take to reduce risks caused by natural and man-made hazards. So this ranges from coastal storms, winter weather, pandemic flu and much more. So this public review period is your opportunity to send suggestions for improving the content and functionality of the site or reporting any problems you experience finding information. Visit [nychazardmitigation.com](http://nychazardmitigation.com) for more information.

Omar Bourne: [01:57](#) Thank you Allison. This story is from the New York Times. Now, the city of Los Angeles filed a lawsuit against the makers of the Weather Channel app, accusing the company of mining user

data for what the city calls unrelated commercial purposes. Now according to the lawsuit, the weather company, which is owned by IBM, allegedly took user's geolocation data and used it for things like targeted marketing and analysis for hedge funds. The weather company asks its app users to turn on geolocation services on their devices so they could receive localized weather forecasts and alerts. City attorney Mike Feuer said that LA was "Taking action against one of America's largest corporations for what we allege is egregious behavior." An IBM spokesperson countered by saying, and I quote, "The weather company has always been transparent with use of location data. The disclosures are fully appropriate and we will defend them vigorously."

Allison Pennisi: [02:56](#) Very curious to see what happens with this. Very interesting story from the Washington Post. AccuWeather, which is a private weather company recently announced that they would launch their own hurricane scale this year. The scale would be called The Real Impact Scale for hurricanes or RI. So what's the big deal? Meteorologists currently use Saffir-Simpson, which takes into account wind speed to convey a storm's threat. Now, according to AccuWeather's founder and chief executive Joel Myers, the new RI scale will take into account wind speed, flooding rain, storm surge and economic damage, calling it larger and more comprehensive than the Saffir-Simpson.

Allison Pennisi: [03:31](#) So now get this, according to AccuWeather's new scale, Hurricane Florence would have been an RI four at landfall versus a category one on the Saffir-Simpson scale. Hurricane Harvey would be an RI five versus a category four, and Sandy would have been an RI five. A small group of scientists and communicators who are looking at ways to improve the Saffir-Simpson windscale say introducing a new scale is premature because there's more information needed on how emergency managers use the current information. Now, while some in the meteorological community say two scales would cause confusion, anxiety and panic, Myers says he's proud of his new scale which is "going to save tens of thousands of lives."

Omar Bourne: [04:11](#) Wow, lots of information in there and we will definitely keep a look on that as we get closer to hurricane season. There's a lot more to come. Up next, we break down how New York City is taking steps to reduce its long-term risks from hazards. But first, here's a message from New York City Emergency Management Reduce your Risk Program.

Speaker 5: [04:35](#) New York City's dense population and geographic location make it especially vulnerable to emergencies caused by natural and

man-made hazards. While it's important for you to protect yourself and your families from emergencies, it's also important to protect your property. Take steps to prepare, reduce your risk. Go to [nyc.gov/reduceyourrisk](http://nyc.gov/reduceyourrisk). There, you'll find tips and information about the cost effective and sustained actions you can take to reduce your properties long-term risk from hazards.

- Speaker 4: [05:06](#) If you don't know, now you know. You're listening to Prep Talk, the Emergency Management podcast.
- Omar Bourne: [05:15](#) That's right, you are listening to Prep Talk and we are back. Now, as we mentioned earlier, we are talking about hazard mitigation. Our guests are responsible for overseeing the City's long-term plan to minimize the effects of a hazard event on New York City's population, economy, property and infrastructure. Please welcome to Prep Talk, Heather Roiter, executive director of hazard mitigation and recovery at New York City Emergency Management, and Melissa Umberger, deputy director of hazard mitigation and recovery. Thank you for joining us.
- Heather Roiter: [05:46](#) Thanks for having us here.
- M. Umberger: [05:48](#) Thank you.
- Allison Pennisi: [05:48](#) Okay, so this question is for both of you. Heather, you can go first. Can you share with our listeners more about your role and how hazard mitigation ties into the disaster cycle?
- Heather Roiter: [05:58](#) Sure. So, hazard mitigation is part of that four step disaster cycle. So, us as emergency managers like to think of disaster going from in the four steps. So prepare, respond, recover and mitigation. So mitigation is that long-term action you take, and you're doing it before the next disaster happens. And the goal of it is it reduces that impacts of what happens. So, doing something today makes things less severe after something bad happens.
- M. Umberger: [06:28](#) Right. And I would also add that, it's often neglected cycle, part of the cycle, but I think in light of recent disasters like Hurricane Maria, Hurricane Florence, even Hurricane Sandy, it's become much more important to invest before a disaster happens in these long term mitigation strategies. In fact, FEMA estimates that for every dollar invested in mitigation, \$6 is saved in the long-term.
- Allison Pennisi: [06:54](#) Wow.

Omar Bourne: [06:54](#) Very interesting. Now, our listeners hear the word mitigation. What does that mean for them?

Heather Roiter: [07:00](#) Yeah, it's a hard term. It has many different meanings in different industries. In emergency world, emergency management world, mitigation is that risk reduction, risk management. Resiliency is a pretty common term that's used right now. So we can think of it in that aspect.

Omar Bourne: [07:19](#) Now Heather, the city's hazard mitigation plan debuted back in 2009, and it outlines goals, objectives and specific actions New York City can take to reduce its risk. How has that plan evolved since then?

Heather Roiter: [07:33](#) Right. So I've been working on mitigation since we wrote that first plan for New York City in '09. Mitigation plans are actually required by the federal government for every state and jurisdiction out there. So, everyone has to have these, there's thousands of them that exist. The carrot is basically if you have a plan, it also makes you eligible for certain grants. So it makes you eligible for federal money to help actually do risk reduction projects. So we had our first plan in '09, we're very proud of it. It was 500 pages.

Omar Bourne: [08:04](#) Wow.

Heather Roiter: [08:06](#) I'm sure everyone read it, front to back. But it was the first comprehensive document that we were able as the City of New York to put out there and say, these are the hazards you should think about that really pose a risk to us as New Yorkers. And people who come here, visit here, have investments here, these are the hazards to think about. And then doing that understanding of the risk, we assess what those risks are, what the vulnerabilities are, what's unique to our population, the built environment, how things are changing in the future as well that could exacerbate what happens from those hazard events. And then what are the actions we could take to reduce the risk.

Heather Roiter: [08:45](#) So, we wrote that plan in '09. We were very excited. We have to update it every five years. We came out with the next iteration in '14. The big difference then was, we included man-made hazards in that, so we decided to expand out and say it's not just natural hazards that are posing a threat. We need to think beyond that. And then we also, you know, we realized that there was a lot of information that goes into that process, but it still wasn't the most digestible format. So we're very excited thinking about our 2019 plan, saying, hey, it's 2019, maybe we

should think about going web-based and get rid of the big, big document.

Omar Bourne: [09:23](#)

500 pages.

Heather Roiter: [09:24](#)

500 pages. Yep.

Allison Pennisi: [09:26](#)

So I'm glad, Heather, you brought this up. So you now have the 2019 New York City Hazard Mitigation Plan website. It marks the first time the City has had a web-based FEMA mandated plan, and it's been available for public review and feedback. Could you both share with our listeners why is soliciting feedback from the public on something like this so important?

M. Umberger: [09:48](#)

Sure. I just wanted to add on a little bit on to what Heather was saying before about how the 2014 plan wasn't a very digestible document. And so for 2019, we really wanted to move away to something that was more dynamic and more engaging for the public. And in terms of soliciting feedback, the reason this is so important is even though Emergency Management is creating this website and this plan, we really view this plan as the City's plan. We really feel that the information that we have on the website can be useful not just for City agencies, but community groups, businesses, people doing research, academic institutions.

M. Umberger: [10:25](#)

And so, it's important for us to hear from the public on what ways that we can improve the content and maybe the user functionality because at the end of the day, we want this to be a useful document. Our public review period goes to February 1, but I will say that even though the 30 day review period ends in February, we're going to continue to solicit feedback because it's a living document and we want to continue to make it more useful and programmatic for the public.

Heather Roiter: [10:55](#)

Right. And that's the beauty of having it on a website so we can always add to it. There's such a culture of resiliency that's happened in New York. Take 9/11, but Sandy, we just see so much investment in just a growing industry happening here. So this allows us to take what people would like to see and give us that feedback and keep adding and building on the site.

Allison Pennisi: [11:15](#)

I think it's great because oftentimes people say the government isn't transparent with what it's doing and the types of plans we have. And having, like you said, a web-based plan allows people to actually see what the City has done or what the City is considering and talking about. And we were saying this before,

mitigation is not an easy topic for people to understand, but people understand resiliency and coming back to, coming back to normal, but building better, stronger, smarter. So this is actually very exciting. And for our listeners, nychazardmitigation.com is the website.

- Omar Bourne: [11:48](#) And I'm glad that you mentioned the website because I'm actually on it right now, and it talks about, you know, New York City's hazard environment. And you look at natural environment, you look at social environment, built environment, and even the future environment. So there's a lot of information on here. People wouldn't think about, you know, your social environment as something that needs to be mitigated or that could be a risk. So this question is for both of you. What are some examples of how New York City is taking steps to become more resilient to these emerging threats and hazards, and then what kind of resources can be found on the website?
- M. Umberger: [12:26](#) There are a number of tools and resources on the website. Omar, the aspect that you were referring to is what we call our New York City hazard environment. It's a story map that's put out through ArcGIS. And we look at elements in the cities, built, natural, and social environment that may amplify the impacts of different hazards. And through this tool, you have access to interactive maps, you can zoom in, you can click on different aspects of the map to get more information. There's dashboards on demographic variables that could be helpful for communities and even businesses.
- M. Umberger: [13:01](#) Another tool that we have on the map is what's called the mitigation strategy. We have a list of nearly 900 projects that the City is currently doing or would like to do in the future to mitigate the impacts of hazards. Around 800 of those are existing or completed actions. And we have an interactive mitigation strategy map in which viewers can scroll around and click to see what city agencies are currently working on to mitigate the impacts of these hazards.
- M. Umberger: [13:33](#) And some of these strategies are very building specific. So, installing backup generators, elevating electrical equipment on a building scale. And some of these are also infrastructure-related where we're talking about coastal protection in low-lying neighborhoods to reduce the risk and the long-term. One of those programs is called the Interim Flood Protection Measures that the New York City Emergency Management is engaging on now. So I'll pass it to Heather.

- Heather Roiter: [14:02](#) Yeah. So I can talk more about that. So that's a really, that's a very close program to me. That's within the mitigation unit here at Emergency Management. And so, although we work with many, many partners. And so that is a program that we launched back in 2016 with the mayor's office of recovery and resiliency to identify sites throughout the city that would benefit from temporary deployable flood protection. So it takes a really long time to do the permanent work and while the City got a lot of money after Sandy, construction just takes time. And so we said, what can we do today that can provide some sort of risk reduction, help reduce flooding impacts if we were to have a coastal storm between now and the time these large big projects are going to be implemented.
- Heather Roiter: [14:45](#) So, the Interim Flood Protection Measures Program uses deployables. And we have 46 sites. It's critical facilities such as firehouses, pump stations, wastewater treatment plants, and also low-lying neighborhoods such as the Red Hook neighborhood in Brooklyn. And so, we use different measures, ones called the Hesco barrier, which is kind of a big bag filled with earth that's four feet tall. And then we also use deployable Tiger dams which are water filled tubes that go out right before a storm. So, these measures are really quick to go out and allow us to reduce the impacts of flooding should a coastal storm happen.
- Allison Pennisi: [15:25](#) And all of these measures are deployed just in time to ensure that these neighborhoods stay safe during a coastal storm or a hurricane.
- Heather Roiter: [15:33](#) Yeah, most of it. So we do something called, we tried to put stuff out today, some of these measures out now so we have less to do when the storm's arriving. Because we have a really short window to work in when a hurricane's coming. We actually put a lot of these Hesco barriers, these four foot tall earth-filled bags out. So we do as much of the alignment as we can, so protect as much of that building or that neighborhood level and then we leave gaps. And then when a storm is coming, a contractor will come and fill those gaps with another deployable called Tiger Dam, which is water-filled.
- Heather Roiter: [16:07](#) So Red Hook is kind of our shining star. It's out and up for visitation and viewing. We actually did an international design competition, which was a really fun part of it. So, these bags are maybe not the easiest on the eyes. So we being out in the community wanted the community to feel like it was part of their environment. And so, we did this design competition and we had dozens of entries and then we printed the winning artist

on banners and put those on the Hesco bags. So, now you have these banners of artwork kind of lining the community. So for those that know New York, go visit Red Hook. If you know where Ikea and Fairway is, it's right over there on Beard Street.

Omar Bourne: [16:51](#)

I'm sure a lot of people know where the Ikea is.

Allison Pennisi: [16:51](#)

That's fantastic. And it's beautifying something that somebody might look at it and say, oh, this is kind of an eyesore just to make, and also the fact that you're planning ahead, we talk about this all the time, what you need is not an emergency plan and we are taking steps as the City to ensure that people are prepared for coastal storms and hurricanes through these hazard mitigation steps. So this is fantastic.

Omar Bourne: [17:15](#)

Resiliency and beautification, I like it.

Heather Roiter: [17:19](#)

A nice hybrid there. Yeah. So, it makes us really excited. And that's again, another project that's just one of hundreds that's on our website.

Omar Bourne: [17:26](#)

So besides the City, what are ways that property owners can take steps to reduce their risk of being affected by hazards?

Heather Roiter: [17:34](#)

We came out with a Reduce Your Risk guide through the Ready New York program. So, we have, it's a great guy for anyone who is either in their community or owns or lives in a residential unit. We talk about measures you can take for different hazards. So, there's simple things like check valves. So for rain flooding, when we get big rain events, just remembering to put check valves in any of your sewer mains can help prevent backflow from happening. And adding downspouts, just making sure that any water runoff actually goes into the street towards the sewers. Also for bracing, anything that could fall during an event. So, people don't think about it but earthquakes, and Melissa talk a lot more about this, are a hazard we really think about. And so there's measures for earthquakes too that you can take.

M. Umberger: [18:22](#)

Yeah, sure. Such as strapping down nonstructural items like bookshelves, desks, those sorts of things. We work closely with the Department of Buildings on putting out this guide and the one thing, one huge takeaway I think was maintenance is of utmost importance. Maintaining your building, checking your roof to make sure there's no rot because for snow events, as snow falls, it could add extra weight onto the roof. And you know, just really simple things that are important for

maintaining your building. And I will add that on our website we have a tab called community and you'll see these strategies, many of the ones that are in reduced your risk are also included in this section. But in addition to that, we also have community-specific mitigation strategies that community groups at the neighborhood level can take on, such as tree plantings, installing rain gardens.

M. Umberger: [19:18](#)

We also interviewed a number of community groups in New York City that are currently doing mitigation strategies at the neighborhood level. So we spotlight a number of community organizations doing solar panel installations, micro grids, mesh networks, stewardship programs. So, all of this information can be found on the hazard mitigation plan website.

Allison Pennisi: [19:42](#)

And as a homeowner I have to say that there are some steps that I've taken thanks to the Reduce Your Risk guide that I didn't realize were considered hazard mitigation steps. I thought it was just a general maintenance piece, but the fact that this is something that is emphasized in this guide also makes me feel like, oh, I must be doing something right.

Omar Bourne: [20:01](#)

And I like that you bring that part up, Allison, because I think a lot of people don't realize that some of this stuff that we term, mitigation, you're already doing it listeners. You're doing it, you know, you're out there making sure that your homes are better prepared. And that's part of this strategy of resiliency and mitigation. So it's not too difficult, you're already doing it and the website gives you more information and more tips on how you can further what you've already begun to do.

Allison Pennisi: [20:31](#)

All right, well, we really appreciate Heather and Melissa, you guys taking the time to speak with us about hazard mitigation, all of the work the city is doing. Right now, we're going to go into our rapid response Q&A.

Speaker 4: [20:46](#)

It's time for Prep Talk rapid response.

Omar Bourne: [20:51](#)

It is rapid response time, and if you're a first time listener, it's very simple. Allison and I will ask Heather and Melissa a number of questions and they will give the first answer that comes to mind. So, let's get into it. I always loved the rapid response.

Allison Pennisi: [21:07](#)

I know you do.

Omar Bourne: [21:09](#)

Heather, we're going to start with you. First question, what keeps you up at night?

Heather Roiter: [21:15](#) I would say cyber attacks keep me up at night. I consider that really kind of that emerging threat, emerging hazard that's out there. It keeps evolving quickly, and I think the thing that keeps me up about is that it's not tangible, right? But when it's here, it's here. And so, it's a little harder, the detection piece of it can be a challenge.

Omar Bourne: [21:35](#) Very, very good point there.

Allison Pennisi: [21:38](#) Okay. So, Melissa, what do you think is the most important emergency preparedness tip?

M. Umberger: [21:43](#) I would say the most important emergency preparedness tip is to make sure you have backup copies of important documents, social security card, marriage certificates, any medication prescriptions that you have, really making sure you have that redundancy.

Allison Pennisi: [22:01](#) I love that.

Heather Roiter: [22:03](#) I would say the same thing and I say this coming off the heels that there was a fire in my building. So my next door neighbor's apartment had a fire. Unfortunately, I was here, but in dealing with all the aftermath, with all my neighbors in the building, everyone's like what would I have done if my apartment had caught fire as well. And it's the documents. I mean, in your Go Bag, you should always have the sentimental things that are irreplaceable as well. But those documents is really the first step if you have to really rebuild a lot of your life if you lose things in a fire. So, for me personally, today, that resonates a lot more.

Omar Bourne: [22:40](#) And it really hits home when it happens to you and we always tell people, you know, you want to be prepared, you hope that nothing happens. But if something does happen, you want to make sure that you take these steps as you say to make sure that you are prepared. So, we're happy that everything worked out for you and that you are also taking those steps to make sure that you're prepared in the event of an emergency.

Allison Pennisi: [23:04](#) All right. What's your favorite movie or TV show, Melissa?

M. Umberger: [23:07](#) I have to say Game of Thrones. I'm very excited for the final season, April 14th.

Omar Bourne: [23:14](#) She has it marked on her calendar. [crosstalk 00:23:17]

Allison Pennisi: [23:21](#) She has a viewing party going.

Allison Pennisi: [23:21](#) Heather, what about you?

Heather Roiter: [23:21](#) Game of Thrones is a good one. I want to say Black Mirror. I have really loved it, it's a very twilight zone like show on Netflix. So I haven't seen the third season. I know it's out. So no spoiler alerts, but I've heard about the, I've heard it has some good things and a new approach.

Omar Bourne: [23:37](#) This is not a spoiler alert but I'm hearing that you get to choose your own experience with the show.

Heather Roiter: [23:45](#) Yeah, choose your own ending.

Omar Bourne: [23:46](#) Your own ending, wow.

Heather Roiter: [23:49](#) It reminds me of the choose your own path to preparedness that Ready New York has for its tween guys.

Omar Bourne: [23:53](#) Look at you bringing it home.

Heather Roiter: [23:55](#) You know I have to. That's my job.

Allison Pennisi: [23:58](#) Shows that we were ahead of the curve, right?

Omar Bourne: [24:02](#) Next question is a music question. What is currently on your playlist? Heather, I'll start with you.

Heather Roiter: [24:09](#) My playlist has Phantogram, The XX, Portugal. The Man, 30 Seconds to Mars.

Omar Bourne: [24:17](#) I like Portugal. The Man.

Heather Roiter: [24:20](#) Thanks for singing Omar.

Allison Pennisi: [24:24](#) Special edition of Prep Talk, Omar sings.

Omar Bourne: [24:28](#) Prep Talk Karaoke.

Allison Pennisi: [24:28](#) Melissa, what about you?

M. Umberger: [24:30](#) I would say a Major Lazer, J Balvin. Another artist I really like that put an album out this year is called Mitski. Really, really good, good stuff.

Allison Pennisi: [24:40](#) All right. Sum up the work you do in one word. Melissa.

M. Umberger: [24:45](#) Gosh, that's a tough one. I would say mitigate.

- Heather Roiter: [24:52](#) Mitigate. That's fair. One word. That's a hard one. I'm giving an hour and I would still not be able to sum it up. Analytical I'd say.
- Omar Bourne: [25:04](#) Wonderful. A lot of good information that you guys have shared with us today. Now, for our listeners, just to remind them, any last words on how they can really not only use the website but take mitigation into their everyday practice.
- Heather Roiter: [25:22](#) I think a lot of it's just being aware. There's a lot of risk out there, and so, just being more aware of what hazards could affect you. And if you have any, anywhere, specifically where you live, just your environment around you and how that might make you more vulnerable to those impacts.
- M. Umberger: [25:41](#) I would agree with that as well. Making sure you know which hazards could affect you in your neighborhood. And I mean, I think mitigation when we think about it as being this resiliency long-term strategy, a lot of it parallels over to sort of quality of life issues as well. I think one thing about mitigation that is interesting is different strategies can have co-benefits that it's not just about reducing risk in the long-term but can also help improve your environment. So, like planting, tree plantings is good for reducing the risk of extreme heat events by vegetative cover, but at the same time, it also increases the livability of your neighborhood.
- Omar Bourne: [26:20](#) Wonderful. Very well said. Very well said.
- Allison Pennisi: [26:22](#) Then for now to our listeners, you can log onto [nyc.gov/hazardmitigation](https://nyc.gov/hazardmitigation) to learn more about hazard mitigation in New York City. And don't forget to check out the 2019 New York City Hazard Mitigation Plan website. That URL is [nyczazardmitigation.com](https://nyczazardmitigation.com). And of course, be sure to follow New York City Emergency Management on social media, Twitter [@NYCEmergencygmt](https://twitter.com/NYCEmergencygmt), and [@notifyNYC](https://twitter.com/notifyNYC) for emergency alerts and important city service updates.
- Speaker 1: [26:56](#) That's this episode of Prep Talk. If you liked what you heard, you can listen anytime online or through your favorite RSS feed. Until next time, stay safe and prepared.