Media Briefing: Can the South be a model for flood preparedness and recovery?

October 16, 2025 event transcript

00:00:08 - Sarah Bucci, Water Hub: If you're not familiar with us, the Water Hub is a non-profit, pro bono communications organization that focuses exclusively on water. We host media briefings like this because we are working to help contextualize the news. We want to connect journalists with new spokespeople, and help reporters to build water literacy with their readers, or listeners, or watchers.

00:00:37 - Sarah Bucci: And we're coming together today to talk about flooding and what communities in the South really need to break this cycle of disaster, recovery, and rebuilding, and build for a future that's going to work for everyone in the kind of climate situation that we're in now.

00:00:59 - Sarah Bucci: We know, 100-year floods are happening more often. As temperatures rise, extreme rain is getting more frequent and more severe, and honestly, more deadly. And these effects are not felt evenly across all communities. Rural communities in particular, we know southern Black communities face twice the risk from flash floods. And flooding is a chronic issue that's being shaped by climate change. Historical inequity as well, and the policy decisions that we're making, and we know there's not a one-size-fits-all to this, and so that's why we wanted to bring together experts who span working across the region, from the Gulf Coast, in Louisiana and New Orleans, to western North Carolina.

00:01:50 - Sarah Bucci, Water Hub: And there's a really important role for media to play as well. Following disasters, especially, I mean, after immediate public safety information needs are met. Journalists play a really important role in getting beyond just these weather stories and talking about the complex connections between things like public policy decisions, the personal impact of extreme weather, emergency response and recovery efforts, as well as proactive strategies communities can take using things like nature-based solutions. And, so yeah, that's why we've brought together these leaders from New Orleans to North Carolina to share their on-the-ground realities. We will hear from Dr. Angela Chalk from New Orleans about what water leadership looks like when solutions are truly community-led, from Dr. Arsum Pathak from the National Wildlife Federation about regional approaches to climate adaptation in Texas and the Gulf South, and from Maggie Ullman, Councilmember with the City of Asheville, who will tell us about her experience navigating the devastation and recovery from Hurricane Helene.

Sarah Bucci, sarah@waterhub.org, 303-931-6049

00:03:09 - Sarah Bucci, Water Hub: So I want to start by just allowing our speakers to introduce themselves before getting into these questions. So, Maggie, I'm going to turn it to you first.

00:03:22 - Maggie Ullman: Hello, everybody. Thanks for having me, Sarah.
I'm really honored to be on this panel with both Dr. Chalk and Dr. Pathak.
My name is Maggie Ullman. I'm a mom, I'm a wife, I'm also a city council member for Asheville.
00:03:39 - Maggie Ullman: Formerly, I was also a public servant in the city. I was the City of Asheville's first sustainability director. And Asheville started that program. We were the first city in the South doing a climate change program, and I led that for 7 years. And then currently in my day job, I'm a climate advocate where I work with national philanthropy and national nonprofits, building coalitions around climate change.

00:04:05 - Sarah Bucci, Water Hub: Great. Thank you, Maggie. Arsum, can I hand it to you to introduce yourself?

00:04:10 - Dr. Arsum Pathak: Yes, thank you, Sarah, and thank you for having me on the panel. Hi, everyone. I'm Arsum Pathak. And I lead the climate adaptation and coastal resilience work for the National Wildlife Federation across the Gulf Coast, as well as the Mississippi River Basin. A lot of my work focuses on helping communities and state agencies plan ahead for flooding, sea level rise, using a combination of climate data, policy tools, as well as partnership to turn what we have learned from science into action on the ground.
00:04:48 - Dr. Arsum Pathak: My work spans across the local level, working with community leaders and decision makers to ensure that they understand their climate risks and identify natural, nature-based solutions that are these win-win, cost-effective infrastructure options available to them, and then build the capacity they need to access some of those large-scale federal and state funding mechanisms.
00:05:17 - Dr. Arsum Pathak: At the state level, I work with different planning processes, so the Texas Coastal Resiliency Master Plan, or the State Flood Plan, the Hazard Mitigation Planning Process to ensure that these solutions, there's a pipeline that the projects that are getting identified at the local level are then also embedded in those state priorities and budgets when they take shape.
00:05:42 - Dr. Arsum Pathak: Before this role, I earned my PhD in environmental science. A lot of my research focused on climate change and sustainable development in coastal communities, so I try to carry that science-forward lens into a lot of my work at the National Wildlife Federation.

00:07:04 - Sarah Bucci, Water Hub: So, I have my first question here, which is for Councilwoman Ullman. Asheville is still living with the destruction from Hurricane Helene a year after the storm. Last September, over 100 people died in North Carolina because of the storm. Flooding damaged or destroyed homes and businesses. And that includes the city's water system. Asheville's three water treatment plants were damaged, and city residents went without drinkable water in their taps for over 50 days. I'm wondering if you can tell us about your experience living through the storm, and what your focus is today on those ongoing recovery efforts.

00:07:48 - Maggie Ullman: Absolutely. I think in order to understand what happened to Asheville and Western North Carolina, I want to tell you a little bit more about who we are first.
00:08:00 - Maggie Ullman: Because in southern Appalachia, water really runs through our culture. Kids learn to swim in our creeks, we fish in our rivers, we have family reunions on the banks of our waterways. And water also runs through our economy. Tourism accounts for about 20% of our economy. We have a tremendous amount of outdoor recreation, a lot of rafting and boating, and so our rivers also fuel our community, and our cities are built in our river valleys because we're mountainous.
00:08:34 - Maggie Ullman: So when this happened, you just gotta understand where we were starting. And before this happened, we've actually been billed as a climate haven, nationally. People from across the country have been moving here to seek refuge from disaster. Not only that, I think that we were actually ahead of the curve on some of our climate planning. We had raised our development standards after a flood in 2004, so above what FEMA and the state required, that buildings had to be elevated more. We spent $35 million to build a new spillway at our biggest water treatment plant. And that was completed, I want to say, in, like, 2020? Had that not happened, the projections are that 10,000 people could have died from a dam breach.
00:09:21 - Maggie Ullman: We built a secondary water main, so we did a lot of things right, and even with all of that, this catastrophe happened to us.
00:09:36 - Maggie Ullman: So now what, right? Where do we go from here? And what I want to depart is the biggest lesson I'm seeing, both as an elected who was a frontline leader in this, someone who's been working on climate action for 20 years professionally, is that we need to design our cities to bend instead of break.
00:09:55 - Maggie Ullman: And that this is going to be happening to more and more communities, not just coastal ones. We're 200 miles from the ocean. We're a mountainous inland community, so what does it look like to design for bending instead of breaking?

00:10:09 - Maggie Ullman: Fundamentally, we need to redefine what infrastructure means beyond pipes and pavement. And I'm gonna talk about 3 ways. The first is that we need to think of forests as natural infrastructure.
00:10:22 - Maggie Ullman: Our forests around our water reservoirs have been protected in land conservation since the 90s. 19,000 acres of pristine forest. After Helene, one reservoir had 35% tree canopy loss, and the other had 15%. The result of this was severe landslides, severe runoff, and it created a chocolate milk texture or, you know, turbidity in our reservoirs, which was too dirty to run through our water treatment plants, and this resulted in the lack of drinking water for 165,000 people for 54 days.
00:10:58 - Maggie Ullman: So as we pursue recovery, we're really trying to think about how we can look at those forests as natural infrastructure. FEMA funding is really focused on pipes and pavements. So we're trying to make the case now that not only was our treatment system damaged, but that our forests, our natural infrastructure was damaged, and therefore deserve federal recovery dollars. We're not sure if that's gonna work. If you know anyone at FEMA, introduce me, we're working on it really hard. But it shouldn't be this hard to make the case. Fundamentally, our reservoir would not be clean if we didn't have 19,000 acres of land preserved around it. So, we're really trying to look into that natural infrastructure, because that's where the federal funding is showing a gap right now.
00:11:50 - Maggie Ullman: The second thing about rethinking infrastructure is that I think we need to think about relationships as community infrastructure and support that work as well. So before the storm, we worked... the City of Asheville worked with community partners to launch the Climate Justice Initiative, which built trust and mapped our most climate-vulnerable neighborhoods by census tract. So when the storm actually hit, that mapping allowed us to know who was going to be the most vulnerable and at risk, and so we were able to deploy resources. Those neighborhoods got water and food before the general population of the community. We were able to check on them, and all the relationships that had been developed in the Climate Justice Initiative not only secured quicker life safety response, but those partnerships are also being used to really look at recovery through resilience
00:12:44 - Maggie Ullman: Hubs. The idea of having centers where in good weather and bad, communities can come rely on each other, have the supplies and the support they need.
00:12:53 - Maggie Ullman: The third area where we need to redefine infrastructure is to look at coalitions as advocacy infrastructure. After the storm, the American Flood Coalition joined us in Western North Carolina and created this thing called the WNC Recovery and Resilience Network, and its elected officials across 13 communities, and I actually, later today, am going to a two-day retreat of this group.

Sarah Bucci, sarah@waterhub.org, 303-931-6049

00:13:18 - Maggie Ullman: And what's really important about this group is that this coalition, we come together for a unified voice. So when we go to DC, it's not the Asheville story, it's not the Waynesville story, it's the regional story, and those voices span the urban-rural divide, they span political parties, they span geographies. And so by coming together and having support from the American Flood Coalition, we're able to lobby together, we're able to advocate together.
00:13:48 - Maggie Ullman: We also had a delegation that I participated in in August, where we also spanned the divide from our disaster to another community, and we visited Kerr County, Texas elected officials, and we came and visited and showed solidarity and really just had tender conversations about just understanding parts of what they're going through, and bridging that, our disaster and their disaster, we can work together and collaborate.
00:14:16 - Maggie Ullman: So those are 3 ways that we really, I think we need to look at infrastructure differently. Flooding is the most common and costly disaster in America. Full stop.
00:14:27 - Maggie Ullman: And it's not just coastal communities anymore. So, as we bounce back, as we bend forward, we need to do it in collaboration together.

00:14:40 - Sarah Bucci, Water Hub: Thank you, Maggie. And that kind of reframing is a really good segue into my next question for Arsum. You work at the intersection of climate science, policy planning, and community engagement. That's a lot to straddle, but I'm hoping you can tell us about how you approach this work and shifting from reacting to disasters to planning for long-term adaptation and resilience.

00:15:10 - Dr. Arsum Pathak: Thank you, Sarah.
00:15:12 - Dr. Arsum Pathak: I think the biggest shift needed to continue this work is in the mindset. Maggie mentioned a lot on how to sort of consider our nature not just as natural features, but as an infrastructure solution that is available to us, right? That provides these protective benefits while building that long-term resilience.
00:15:36 - Dr. Arsum Pathak: In addition to that, I would also mention that we're gonna start seeing these flooding events, whether it's in Asheville or in the Hill Country, Texas. They're no more just in a one-off event. But we need to start thinking of them as part of this changing baseline. So as we know, climate risks are changing, they're rather magnifying and intensifying, so we cannot just rebuild to yesterday's conditions anymore. We have to plan for tomorrow's risks.
00:16:08 - Dr. Arsum Pathak: What that means is using climate science and data, not just to map those damages after a storm has hit, but to guide where and how we are investing before they happen, and great examples from Asheville on how some of that pre-planning mitigated

the damages. You know, you can't always stop a storm, but you can mitigate the damages that you're facing from it.
00:16:34 - Dr. Arsum Pathak: It's about aligning infrastructure, land use, community plannings with the realities that we're facing, that it is going to be a warmer, wetter planet and future.
00:16:45 - Dr. Arsum Pathak: The other piece here is also about capacity and equity, so making sure local governments and communities have those resources, partnerships, coalitions, and just the overall confidence to act on that science.
00:17:00 - Dr. Arsum Pathak: From what we've seen in our work is that when people understand their risks and have that support to design local solutions, whether it is wetland restorations, restoring forests, or how we're managing our stormwaters, they are able to take that ownership of resilience
00:17:19 - Dr. Arsum Pathak: So really shifting from that reaction to building long-term adaptation. It's not just a technical fix, but about empowering communities so they are able to plan ahead, making sure we're embedding resilience into that everyday decision-making, and then investing in those long-lasting solutions that we know will hold up over decades, would grow stronger with time. And they're not just built with that narrow framing of the next storm ahead.

00:18:01 - Sarah Bucci, Water Hub: Thank you, Arsum. I'm wondering if I could ask a follow-up specifically on this question of partnerships and your work in Texas, if you could share some examples from that.

00:18:12 - Dr. Arsum Pathak: Partnership is really at the heart of all this. You can have the best data or plan in the world, but it only matters if people across sectors are moving it together.
00:18:24 - Dr. Arsum Pathak: One example, at the National Wildlife Federation, we help administer a coalition called the Texas Living Waters Project, which brings together nonprofits from across the state around a shared agenda. So Maggie touched on a lot of these things, but it is a space where we coordinate strategy, messaging, advocacy. So, when we are engaging, either at the legislature or the policy discussions, we're speaking in that one unified voice about the need for planning, about the need for equitable and natural infrastructure solutions.
00:19:05 - Dr. Arsum Pathak: Beyond that coalition, across our broader work at the National Wildlife Federation, we really focus on co-creating solutions with the communities, so making sure multiple voices are brought into the process, and they're not just the usual environmental partners.
00:19:25 - Dr. Arsum Pathak: We were working on a project in rural Texas where we were co-developing natural infrastructure solutions, and we had everyone, from county judges to

engineers. In the workshops for that process. And something that really stuck with me, we had a high school student participating in those workshops and afterwards, she came to me and said, I've never heard adults in my community talk about these issues this way.
00:19:54 - Dr. Arsum Pathak: So this work, this is what it is about, really, right? Giving people a chance to be able to come together and imagine something different together.
00:20:08 - Dr. Arsum Pathak: And I think that idea of partnership really has to keep growing. We're starting to see it happen. But again, as these climate risks and impacts intensify, we'll need to think even more creatively who's at the table. It cannot just be limited to conservation groups, and advocates. It's about insurance, transportation, real estate, I mean, so many other sectors that are going to feel these changes equally.
00:20:38 - Dr. Arsum Pathak: So, the more we are able to plan together and bring those voices to the table, I think the better prepared we all can be.

00:20:52 - Sarah Bucci, Water Hub: Great, thank you. So, this is a question for Maggie. I'm just curious, in your opinion, as someone who sits as an elected municipal official dealing with this recovery, just from your opinion, what's the role of the federal government to support communities in either setting up their emergency response systems, or in disaster recovery, or in potentially supporting, funding, providing assistance to thinking about nature as infrastructure as well?

00:21:49 - Maggie Ullman: Yeah, I think we got a really quick crash course in all that, and had to learn really quickly.
00:21:58 - Maggie Ullman: And so, what is happening, and where I see maybe some of the gaps in places for growth or leaning in, and then, of course, it's a very changing dynamic with a lot of uncertainty currently. But I would say that, as it relates to nature-based solutions, or thinking of infrastructure differently, I think that's the biggest opportunity for evolution. I'm so thankful how much federal resources will come to our community to rebuild our hard infrastructure, and we need it.
00:22:32 - Maggie Ullman: We had thousands of roads and bridges completely destroyed. Three of the interstates into our region, gone. You know, so we need that, our water reservoir, our water system, we need all that infrastructure. But, I mean, it's been 9 months that we've been going back and forth with FEMA of, like, can they pay for tree canopy and watershed restoration, and there's not a clear answer to that.
00:22:56 - Maggie Ullman: So that's in the, like, direct PA public assistance FEMA funding, where there aren't established pathways, to be very clear. And that money typically is to just

build back to what it was. Then there's another pot of federal funding, which we were awarded through HUD, the Community Development Block Grant Disaster Recovery Dollars, and that is much more flexible, and that we are going to be looking at much more resilient-style measures for our infrastructure, but also for our economic recovery. There aren't... there are very few economic recovery pots available, which was substantially impacted for us as well.
00:23:36 - Maggie Ullman: But I think there had been some previous federal funding, like the BRIC program, which is no longer funded, and the BRIC program really allowed you to do resilience-based, more proactive, nature-based solutions, and that funding is currently not available, so I think there's... I have tremendous gratitude that we are not going to be left on our own. We have a billion dollars of municipal damage, and FEMA will cover a lot of that.
00:24:04 - Maggie Ullman: But it's to get it back to where it was, largely, and so we need some substantial evolution in how that funding is looking, because at the end of the day. There will never be enough taxpayer dollars to recover from all of this, and to do it after every storm, every storm, every storm. So we need to be shifting that reactionary funding stream into protective and preparing.

00:24:34 - Sarah Bucci, Water Hub: Great, thank you, Maggie. Before I ask Arsum this question, just want to invite folks, if you have questions for our panelists, please drop them in the Q&A, and we'll get to them in the last half hour. And then when we get Dr. Chalk on the line, we'll switch gears a little bit. But while folks are putting their questions in, Arsum, a question for you as our resident academic on the call. We've been talking about, I mentioned in our opening, things like 100-year floods have been happening more often, and we know, heavy rain events are becoming more frequent, more severe. Can you help us understand a bit about the climate impacts of these events? And I know, just having worked in Texas and the Gulf, just what the contribution of that was to the deadly floods that Central Texas experienced just a few months ago?

00:25:35 - Dr. Arsum Pathak: Yeah, thanks for that question, Sarah. So, I want to start with what we saw in Central Texas was just truly heartbreaking.
00:25:47 - Dr. Arsum Pathak: I am a new mom, and I just could not even imagine, something of that extent, and how quickly it became a tragedy, right? So just a little bit of background on the Texas Hill Country. It's often called the Flash Flood Alley, and that's for a reason. It has those steep, slopey terrains, thin soils, and a lot of hard, rocky surfaces that don't absorb water well.

00:26:16 - Dr. Arsum Pathak: So, when you get these heavy downpours, the water doesn't soak in, it just runs off really fast, and what might have been a puddle somewhere else just became this extreme wall of water here within minutes.
00:26:32 - Dr. Arsum Pathak: Climate change is making those storms both more frequent and more intense, and the way it works is, so, I usually give this analogy, think of the atmosphere like a giant sponge.
00:26:47 - Dr. Arsum Pathak: So, as that sponge warms up, it can hold more water. And when the moisture gets released during a storm, it squeezes out way more water than it used to. So that's why we're seeing heavier downpours in those shorter windows of time that our infrastructure and landscape just aren't designed for.
00:27:12 - Dr. Arsum Pathak: Again, unfortunately, we cannot control how much rain falls, but we can control how prepared we are for it. And that's where nature-based solutions fit in this puzzle, right? So things like restoring our wetlands, or planting native grasses along the creeks, strengthening our riverbanks with natural vegetation, or reconnecting rivers to their floodplains. All of the things that can slow water down, and give it space to spread safely instead of creating that overwhelmingness amongst communities.
00:27:51 - Dr. Arsum Pathak: Also just being smarter about where we build. We gotta limit development in known floodplains and protect open spaces that can absorb water, and eventually can save both lives and money in the long run.
00:28:07 - Dr. Arsum Pathak: We know when rivers have the room to flow, they would be very less likely to overflow into homes and businesses.
00:28:15 - Dr. Arsum Pathak: So I just wanna end it on a note of hope that we know that the climate risks are going to increase, but we gotta start thinking about it in terms of the opportunities to redesign our relationship with our natural infrastructure, with water, to work with these systems, instead of working against them.
00:28:41 - Dr. Arsum Pathak: And we have to think about those forward-looking, pre-disaster kind of investments now, rather than throwing money once the disaster has hit. Because, again, I mean, if not prevent, we need to think about mitigating those damages from these disasters in the future.

00:29:05 - Sarah Bucci, Water Hub: A question we have from the audience, and I'll tee this up with a little bit of context as well. They've asked, “what has the response from the federal government agencies been regarding support for rehabilitating with nature-based solutions or natural infrastructure?” One thing we know is that this is really an opportunity to do more investment in these kinds of proactive solutions. There was a... I'll dig up and drop in the chat, there was a report from EPIC, the Environmental Policy Innovation Center that does a lot of

research on federal funding and how they, you know, come to communities through things like the State Revolving Funds for clean water and drinking water, and they had identified that nature-based solutions have been historically underfunded when it comes to some of these federal programs. And so, I hear there's a lot of interest in shifting that or bringing dollars into kind of new or innovative projects or just thinking differently about how we use infrastructure, quote-unquote, dollars. And so, yeah, anyway, a little bit to add to that question of just what you've been hearing and the response has been so far. So, I guess I'll put it to you first, Maggie.

00:30:29 - Maggie Ullman: Yeah, I think for our particular experience, we're still in it, so there's so much of our requests for funding from FEMA that are still in the works. And I mentioned earlier, that we're making the case to have our watershed restored, our tree canopy restored, and I don't know yet. We're still waiting to hear back.
00:30:52 - Maggie Ullman: But, they definitely haven't said yes yet, so it is out of the box, and our contacts say they want to work on... they want to make this happen, but navigating a path to saying yes isn't really clear because it is out of the box, and that's for tree canopy restoration in our watershed, and steep slope, like, landslide mitigation. I'm not even sure what the technical stuff is, but that's... that's something. And I think it just depends on the funding, right? As we're looking at our HUD CDBG-DR funding, we're gonna have a lot more flexibility, and 80%... let me get the numbers right.
00:31:33 - Maggie Ullman: A substantial portion of that has to be for more resilient-style things, building back better, but not every community gets that... that pot of money. It was a direct allocation that Asheville got, but we were the only city in the 26 counties that got a direct allocation. So, I think at a high level, I would say there is empathy from individuals in the systems trying to create flexibility when we're asking for it, but my other question is, how many communities are asking for it? How many communities are pushing the system to be creative? I don't really know. But it's not a clear yes in our asks at this point, and we're a year and, like, you know, 15 days into this.

00:32:21 - Sarah Bucci, Water Hub: Yeah, I wonder, Arsum, can speak to that a little bit about the work that's being done to get more communities thinking about this, so they can reach out for those kinds of resources?

00:32:33 - Dr. Arsum Pathak: Yeah, so Maggie, to your question, that's exactly the kind of work the National Wildlife Federation is doing.

00:32:41 - Dr. Arsum Pathak: So we consider... I mean, we are advocates for advancing these natural infrastructure solutions in communities that are underserved, and face those risks disproportionately. So helping facilitate these conversations, helping design project ideas.

00:33:01 - Maggie Ullman: Come on down, let's do it!

00:33:04 - Dr. Arsum Pathak: Sometimes even to the extent of helping them with grant applications and building that evidence base to show how these approaches deliver results.
00:33:15 - Dr. Arsum Pathak: We are also working on a new initiative called the Natural Infrastructure Center for Environmental Justice and Resilience, the goal of which is specifically to provide technical assistance and support to communities who really need and want these solutions within their communities. So, working on... on that at the... the community end, and then at the... the other side, we also have the federal policy teams who are making sure that the national programs, like FEMA's BRIC (Building Resilient infrastructure and Communities) that incentivizes natural infrastructure solutions. I think they have, like, additional points for it. So those kind of programs are sort of beefing up, and there are funding opportunities to better support
00:34:13 - Dr. Arsum Pathak: What communities then actually need on the ground. So there's sort of a multi-pronged approach to it. Everything... I know BRIC is sort of paused or canceled at the moment, but there are, again, opportunities with some of the state funding pots and programs.
00:34:33 - Dr. Arsum Pathak: Again, National Wildlife Federation has regional centers and programs that are working with the state agencies and groups. So, for instance, a lot of my work in Texas is working with the Coastal Resiliency Master Plan to making sure they are thinking about natural infrastructure solutions, because these plans are then a tool to make these projects happen, and help implementation, and they're prioritized for funding if they're included in these state-level planning processes. So, sort of targeting these at different levels.
00:35:11 - Dr. Arsum Pathak: I'll close by saying that we definitely are seeing a growing recognition from federal and state funding agencies that natural infrastructure works, it protects communities, it reduces that long-term cost, and has that environmental as well as community benefit. Which is very different to what we had a decade ago, when they were just seen as sort of these experimental approaches. So they are becoming more of that... part of that mainstream toolkit now. But, yeah, we're gonna continue the work, working at making sure that the communities, the government, both at the state and local level
00:35:58 - Dr. Arsum Pathak: Are working to put them in place, and we have the funding to support this work as well.

00:36:05 - Maggie Ullman: Something I just want to add on to that quickly is there is an example from Asheville where we've been building kind of like an emerald necklace of parks around our riverways, and so those have been established over the last 20 years. We've kind of revitalized a couple neighborhoods, and so having parks and multi-use spaces next to rivers is a fantastic use of public space where there's a high risk. And FEMA is gonna pay to bring those parks back, and we have studies on how to enhance our stream bank stabilization and some others, so we feel like that actually largely will be funded. But it's because of the public will that groups, Arsum, like, you've worked with, you've worked with communities to start doing this, so because it was already part of our system before we experienced destruction, there's a clear path for FEMA resources. So it can come in both directions, right? Like, we were fortunate that leaders before me had that foresight, so we'll get resources. So we need communities to step up and do the right things for nature-based solutions.
00:37:07 - Maggie Ullman: And then get access if they're destroyed, as well as FEMA to have more expansive thinking.

00:37:36 - Sarah Bucci, Water Hub: I'm gonna actually maybe take a pause, because of the time to come back to Dr. Chalk. I think we've got our... have we got our connection back?

00:37:45 - Dr. Angela Chalk: Can you hear me?

00:37:47 - Sarah Bucci, Water Hub: Yes.

00:37:50 - Dr. Angela Chalk: Oh, I am so sorry!

00:37:53 - Sarah Bucci, Water Hub: That's alright. It's life, right?

00:37:55 - Dr. Angela Chalk: Okay, so thank you everyone for being so very patient with me. I am Dr. Angela Chalk, founder and executive director for Healthy Community Services, and we are located in the 7th Ward of New Orleans, Louisiana. I am well, I knew you all went through bios, but the long and short of it is that our... my work and the work that Healthy Community Services does is at the intersection of climate health and public health, focusing on resiliency, coastal issues, as well as urban ag, and my research is in the urban heat island effect.
00:38:42 - Dr. Angela Chalk: So what I wanted to present to the media was first and foremost is how important what their jobs are, and how important it is for them to be healthy in doing this job, because, first of all, they see a lot during disasters, and the disasters are coming more

rapidly, more intense, more frequently, and they're more destructive. And so, the first thing I'm going to say to you all, especially a lot of forecasters and the people who are out on the ground, take care of yourself and take care of your mental health, because we depend on you to give us valid and reliable information in real time, and I know that that's stressful, and that's a lot.

00:39:24 - Dr. Angela Chalk: Now, how we prepare for that is looking at nature-based solutions in a different light, such as for municipalities declaring their green assets as green assets. And what that does, and as we were having our preparations and discussions earlier this week is that it allows for municipalities' bond ratings to be increased and interest rates to decrease. Because once you have those assets, the trees do have a value.
00:40:00 - Dr. Angela Chalk: So, similarly, the way we look at gray infrastructure as being an asset, we have to start looking at our green and nature-based interventions also as municipal assets. And so, municipalities are starting to realize that and declare their green assets, because they have a value, and they have... not only do they have a value for nature-based reasons, but it's a part of a climate action plan, and it... this just boils down to economics, transportation and insurance. And so, if there are climate action plans in place, then you can declare those assets as mitigating factors. Because guess what? Insurance companies then look at you as our municipality, as a lower risk to the events that we have, because... and hazards because of climate issues.
00:41:03 - Dr. Angela Chalk: Then, secondly, how do we look at the people who are protecting us from these environmental hazards. We know that our first responders are police, fire, and EMS, but do we consider our wastewater, stormwater, and drinking water operators as first responders? Certainly they are, because during the times of disaster, these are the people that are relying... that you're relying heavily on to get your services back up.
00:41:32 - Dr. Angela Chalk: The police doesn't do that, fire doesn't do that, EMS doesn't. So let's respect those operators who are making sure that our cities and places of business where we live, comes back online and respect them and declare them as first responders, because they are.
00:41:50 - Dr. Angela Chalk: The other thing that I wanted to mention is how important it is for actions to be driven by communities. We know that municipalities are strapped for money, so lean on community-based organizations, work with them, bridge that gap to be able to come up with the challenges and solutions that you need for your community, because we have to rely on each other during these times. Money is tight.
00:42:16 - Dr. Angela Chalk: We know that federal monies are not what they used to be, and so I would encourage organizations, corporations, to come up with their social engagement plan

and put their money where their mouth is, because guess what? Your people live in these communities just like we live in these communities. So, respect cultural norms, compensate people for their time and expertise, their legacy knowledge, their professional knowledge, and let's build a workforce that we can all work together to save our communities from these threats. They're not going anywhere, they're getting worse, and so we need to come up with a plan, and come up with a plan quickly.

00:42:57 - Sarah Bucci, Water Hub: Thank you, Dr. Chalk. Can I ask a follow-up question about a specific project the Water Hub team had the pleasure of visiting with you earlier this year, and how it relates to these themes, and particularly this community-driven solutions and true community engagement?
00:43:15 - Sarah Bucci, Water Hub: So you took my colleagues on a tour of the Vision 2 Reality Stormwater Management Park this spring in the 7th Ward of New Orleans, and, I think my colleague Nicole's gonna drop a video in the chat if folks are interested in watching, because they can see, see what the park looks like and hear Dr. Chalk speak about its elements in place. But this is a really amazing project because not only does it manage, I think it's 35,000 gallons of stormwater, and it's helping to reduce this flood risk along what is an important hurricane evacuation route, so people can get to safety if they need to. But it was a community-led planning process that was thinking pretty holistically about green space and climate adaptation and ecosystem benefits in a location that has had a long history of infrastructure injustice. So, just to tee that up, I'm hoping you can just tell us more about this project, what it... what went into turning this vacant lot into a community-driven flooding solution?

00:44:22 - Dr. Angela Chalk: So, we engage neighbors, I call them the three E's: engage, educate, and empower people to make decisions. Because once you give people information, what you do with that information is yours, and you're... if you choose not to do anything, but what you can't say is, I didn't know.
00:44:40 - Dr. Angela Chalk: And these were not conversations that we were having in African American communities around climate mitigation and adaptation. And so, we embarked, and when I say we, it's Waterwise Gulf South, the collective of 6 nonprofit and community-based organizations with engaging residents. First of all, let's start having the conversations, and then educating residents around a shared goal and a shared vision. And so, residents of the Seventh Ward defined priority areas that were high flood-prone areas.And through the democratic process. with me being excluded, because I can't be the leader and be a part of the neighborhood as well, which I am, so whatever residents say they want, I follow. And that's... that's how I operate. And so it was decided that this site was the priority site.

00:45:37 - Dr. Angela Chalk: Because there was so much flooding at that intersection, and it's a busy corridor. And through... with funding from the Institute for Sustainable Communities, we were able to win a grant that... the initial grant for Phase 1 was $65,000. And so we worked with a landscape architect, Dana Brown and Associates, to tell them what we wanted to see at that site, because we had already been engaged, and we understood about nature-based solutions, and what type of nature-based solutions could work there. And so the designs came up, the community approved those designs.
00:46:16 - Dr. Angela Chalk: And then we worked with Groundworks New Orleans, which is a workforce development organization. So, they built, and they currently maintain that site. And through that process, Groundworks New Orleans was able to leverage money from the Bezos Earth Fund, and Phase 2, we just opened Phase 2 last week, that now includes high density of trees. a path. It has a resilience hub, it's solar-powered, so it has its own mini solar grid there, and again, it's still managing, well, we need to calculate what it's managing now, because as the vegetation, native vegetation has increased in size, our capacity to manage water has also increased in size.
00:47:11 - Dr. Angela Chalk: Now, the other thing to that is that park has received so much attention, nationally, regionally, and internationally, so we partner with Deltares that they monitor groundwater on that site, so that we can tell what the groundwater levels are at different points throughout the city.
00:47:35 - Dr. Angela Chalk: We've had folks from Japan, and I cannot pronounce the university from Japan, to do a cultural exchange as well, because we... the climates are similar, and so they can understand how the vegetation works in Japan versus the... how the climate... how the vegetation works in Japan, as well as our community-driven process with the residents of Japan. Currently, we're working with Blacks and Bayous, so that African American children can understand non-point pollution, and how that... how that facility helps filtrate water.
00:48:24 - Dr. Angela Chalk: So that it's... we're not polluting Lake Pontchartrain. And we need Lake Pontchartrain because we pump water out of our city into the lake, and so all the pollutants that's going into the lake, we need to understand what that means when we're managing stormwater, and how the vegetation helps to filtrate those pollutants. And so, school kids have come there to understand the native flora, as well as the native habitat.
00:48:56 - Dr. Angela Chalk: Because Louisiana's on a migratory bird pattern, so kids understand that when we're planting the plants that we plant, that that's food for birds on their migratory flight pattern. So it has really turned out way beyond what I could have imagined.
00:49:13 - Dr. Angela Chalk: The unintentional... I call them good unintentional consequences that came about of this project, but most importantly, stabilizing that heavy business corridor. People are now, businesses are now, coming back because they have less fear of flooding.

00:49:35 - Dr. Angela Chalk: In that area, currently, we're working on a flooding investigation survey between two neighborhoods. They're adjacent to each other, Treme and Seventh Ward, and the first report will go out on the 23rd. And what we found in that report was that it was a lack of maintenance, why it was flooding.
00:49:54 - Dr. Angela Chalk: And so, it's going to be interesting to find out in 7th Ward, what is the issue for flooding. And so, just knowing and having residents heavily engaged in this process is what is key to helping us to understand our issues with water and being able to relate that to decision and policy makers. We're... Healthy Community Services right now is working with our local water utility to establish a tree protection plan for the utility. The city has a tree protection plan, but the municipal... but the municipal... the governing agency does not.
00:50:38 - Dr. Angela Chalk: And so I would look at how municipalities define their tree protection plan, because what we found was that our tree protection plan only protected trees in the public right-of-way. It did not protect the trees on... and I see Maggie shaking her head as well. It did not protect the trees that are located at municipalities. Well, those agencies within municipalities.

00:51:05 - Maggie Ullman: A lot of times, or the private sector.

00:51:07 - Dr. Angela Chalk: Yeah, right, correct, exactly, exactly. And so, we're working with them on that. Our next big project is a stormwater, regenerative stormwater management park, so that we can have applied sciences for residents and begin to cultivate a workforce for those ancillary jobs. So not everyone is going to be an engineer or an architect, but there are certainly other jobs that are supplementary to those professional engineers that we can begin to train and have apprenticeships with, and not just a 6-week or 8-week course, here's your certificate, go find a job. No, we have to build those jobs and give people the opportunity to train, and there again, we're lifting folks out of poverty, because they're understanding not only... and the buy-in. I can tell you now, when October comes, people start knocking on my door, Dr. Angela... well, they don't call me that, they call me Angela. It's like, it's time for the trees, when are the trees coming? So they know when our planting season is, and they are able to tell us what type of trees they want, and they take ownership of those trees. If something is going wrong with those trees, they will... I live in a neighborhood where they will come knock on my door and say, hey, you need to get somebody to come look at this tree.
00:52:28 - Dr. Angela Chalk: And so that's the kind of community I wish for everyone to build across this country, and to build those networks, and understand just how connected we are to nature, and how connected we are to each other. And we started with one block. So my call to

action for all of you, in your capacity, start with one block and build it out. I could have never imagined
00:52:52 - Dr. Angela Chalk: Being on the stage that I'm on with being a climate change maker for the New York Times or anything like that. So, start small, know that you all have more in common than you don't, and build a greener world.

00:53:11 - Sarah Bucci, Water Hub: Thank you.
00:53:14 - Sarah Bucci, Water Hub: That was a, yeah, wonderful words to end on, and I... I can see Arsum's comment in the chat about the importance of, kind of, monitoring and proving effectiveness and understanding these systems. I can relate in my own little work in my neighborhood the struggle with maintenance of some of these green infrastructure installations. I'm dealing with that down the street myself, so appreciate you bringing that up. We're at about time, so I'm gonna give our panelists just... they each have a minute to... if there's any other ending words that you'd like to share, and then just to let our audience know that we'll be sending a follow-up to everyone who registered for today's event with the recording and transcript of our conversation here today, as well as if you want to follow up with any of our panelists, we're happy to help facilitate that as well.
00:54:20 - Sarah Bucci, Water Hub: So, Arsum, if I can just pass it to you, if there's anything that you didn't get to talk about, or that you just want to end on a note, I'll give you the floor for a minute.

00:54:32 - Dr. Arsum Pathak: Thank you, and I mean, I just want to thank our wonderful audience to be here this Thursday. I think our journalists play such an important and powerful role in shaping how people understand these events, from shifting that perception to just
00:54:50 - Dr. Arsum Pathak: Fear of these risks to hope and urgency and agency. New York Times did a wonderful story on 50 states, 50 Solutions, where they highlighted a lot of these local voices and community leaders doing this work at the local level, so as dark as the sky looks in the absence of federal funding and agency at times, I think there are stories that... that inspire change, and please keep... Please keep bringing those stories to the forefront, and they can really help others see what's possible in their own communities.
00:55:37 - Dr. Arsum Pathak: But yeah, keeping that shift from reaction to readiness and supporting communities where we can. Thank you so much for having me, and so honored to be alongside all the great work Maggie is doing, the hard work, and Dr. Chalk, always inspiring to hear you talk.

00:55:59 - Sarah Bucci, Water Hub: Thank you. Councilwoman, final words?

00:56:04 - Maggie Ullman: Yeah, this is honestly, like, a little bit of a selfish ask to the journalists out there: Can you also tell about what our community is, not just what happened to us? It's pretty exhausting. So, you know, I started this talking about our culture and the beautiful parts about who we are and why we love our rivers, and so, if there's just a chance, even a line of threading, like, who we were before stuff like that, just does a lot for our spirit as we recover emotionally and all that jazz.

00:56:40 - Sarah Bucci, Water Hub: Great, and with that, I think we'll close. I just want to say thank you. Dr. Chalk had to hop off to another panel that she's part of this morning, so, I know that you all are busy people, and really appreciate the folks who joined us to listen to what you have to say today, and to share it back with their audiences.