

Interview with Brenda Torres

Interview Participants:

Melody Hunter-Pillion, *Interviewer*

Brenda Torres, *Interviewee*

Jamie Currie, *Videographer*

[Due to climate control sensors in the room, occasional audible beeping occurs during the interview session]

Melody Hunter-Pillion: So, for the record, I'm Melody Hunter-Pillion. I am interviewing Brenda...Is it Power?

Brenda Torres: Brenda Torres.

Melody: Torres, I'm sorry.

Brenda: Yes.

Melody: I'm interviewing Brenda Torres. Today is Wednesday, May 30th, 2018. Uh, we're at the International Institute of Tropical Forestry in San Juan, Puerto Rico. And we're discussing experiences with and lessons from past drought and other extreme weather events, including hurricanes. We're also discussing management strategies to improve resiliency in the face of future drought and other weather events.

So, just had to do that housekeeping for a minute, Brenda. And the first thing I'm gonna ask you is just to, you know, tell us who you are. Your name, your position, and, you know, what role do you play?

Brenda: Okay, so my name is Brenda Torres, um, Executive Director of the San Juan Bay National Estuary Program. Our program is a 501(c)(3), part of the National Estuary Program. So, there are 28 National Estuary Programs across the nation, and the only one outside of the continental US and tropical is the one in Puerto Rico. So, it's really—Our area of concern is in this metropolitan region where there's a high, population, density and high demand for space. Everyone wants to be here for like the basic needs and to, also tourism and, and all sorts of services that are provided by the government of Puerto Rico. So it's an—It's a very important area from the economic and social perspective, but also from the ecological perspective, it is an area of, of high value as well. So the Environmental Protection Agency is supporting this program, the San Juan Bay Estuary Program, through the Clean Water Act. We get funding from this Section 320, and not only the, the Juan, the San Juan Bay Estuary Program, but also the 27 other national estuary programs that are based in, in, in the United States.

Melody: Let me ask you, just so I have a sense of community, and where do you live, where you grew up. Are-, do you-, are you-, do you live in San Juan? Or what community or neighborhood did you grow up in, if you grew up in Puerto Rico?

Brenda: Yes, I am born, raised, and educated in Puerto Rico. My entire family lives here. I was born in Bayamón, which is like 20 minutes away from San Juan. It's, it's the suburbs, and is still the suburbs. Most of the population actually lives in these areas and they go and work in the San Juan area. I'm currently living in San Juan. For the past 20 years, my—I've called San Juan my home. And I work there as well.

Melody: I'm gonna start with, when we talk about extreme weather, let's start with Hurricane Maria. So you were back in Puerto Rico when Maria hit, and I want you to describe to me that experience. Like, where were you when the hurricane hit? Who was with you? And what was going on?

Brenda: So, when I heard about Hurricane Maria I was very concerned. I'm part of the Puerto Rico Climate Change Counsel and we know, we, we received many information and data regarding how vulnerable Puerto Rico would be if we were hit by, by a hurricane. And so, all of that information was in my head. I was getting ready-, getting ready with my family. I have two boys, and my husband, and my little dog. And-, and so I wanted to be with, with them, but also with my parents. So, I actually moved away from the coast. I live in the-, in the area that is in the coastal region, a very vulnerable area actually. It's in the Condado. And I had to move away from, from my apartment and get, and you know, and stay with my parents. My parents live... they still live in Bayamón, where I was raised. And so decided to, to just stay with them. But you know, I—I kept, listening and about, and hearing about how just how heavy and, and, and, and intense this hurricane was going to be. So I kept going back to this-, to the-, to the grocery getting more and more stuff. And at the end, I didn't really regret that because I, you know, that all of that grocery that I got at the last minute was actually used by, not only by-, by us, our family, but our... by our neighbors. I was there throughout the night, very scared; never experienced anything like that. I was actually, during, Hurricane...[pause] I forgot the name of that hurricane in New York. What's the name?

Melody: Oh, the one that came up. Was it Sandy?

Brenda: Sandy.

Melody: Yeah.

Brenda: I was-, I was in-, I was in New York during Hurricane Sandy. And I heard the, the wind speed and, and the, the noise was very heavy. But this one in particular, in Puerto Rico, was actually stronger. And, and, and I knew things were going to completely change. Within 24 hours, our lives completely changed. I saw the faces, you know, my, my sons' faces and, and their reaction and, and they were, you know, astonished by, by the difference in the landscape. For us, we know, we've-, we've lived through other hurricanes. So, in a way, I sort of knew how Puerto Rico was going to look, but I didn't know how devastated it was going to be, but for... for all of us. Yeah.

Melody: So you had gone through other storms. You've seen the aftermath before. When the storm was finally over, and you came out and saw, and the family saw, was it even worse than you thought it might be? Or what...Describe to me what it was like.

Brenda: In a way, when I—When I saw, you know, what was left after the storm, I knew it was going to be that bad. But what I didn't know was, how was, how was I going to feel... [sensor beeps] you know, before the hurricane, and I actually got everything ready. My camera, all of my equipment from work, you know, ready for me to document everything and to quickly jump in and support people out there. But after the storm, my reaction was kind of something very different from what I thought. I—I decided to just stay with my family and my boys. I didn't wanna leave them alone. So, I needed them—I needed them to be next to me and to explain to them also, um, how this, you know, really hurricane was gonna happen. I didn't want them to be afraid of their future in a way. You know, it's only a year after we had returned to Puerto Rico. So they—They did ask questions like, "Why are we here? You know, this didn't happen in, back in, in New York." And I reminded him about Hurricane Sandy and what we went through, and everything, but, you know, still they were—They would feel—They were feeling a little uncertain about everything. So, that was really something that I never expected from myself like to be, like not doing anything for 48 hours, just staying with them. I did a quick assessment of my... my apartment. But, you know, never also expected to be with no communication whatsoever with other people. Lots of people were very interested in finding out how-, how were we from the States. I mean they were like trying find information through Facebook and everything, right, through social media. And I realized I wasn't able to respond to any of them 'cause we didn't-, we didn't have any access to-, to Internet. So actually, I do remember when we were sort of so isolated. We did not have any communication... [phone rings] ...which was supporting all of us. And then, at some point—At some point, like after a week, we got the newspaper, a free subscription, right, that the [indecipherable 8:31] was providing us. And I got that. And I saw the picture, the front page picture, and I was like, "Oh, this is why people are so concerned. They're looking at this. This is horrible." I didn't know we were at this point... [laughs] 'cause we didn't know. I mean, we didn't have access to Internet or, or the news, you know. Nothing was working. So, I didn't know what was happening beyond my... my area, you know.

Melody: It was so massive and so—And as you said, so isolated, no communication, that you really didn't even, weren't able to... you weren't able to have a full sense of just how devastating it really was.

Brenda: No, we didn't. We didn't. At some point, we got, I got a WhatsApp call. Got communication maybe a week after from a friend. He works at the portside, and he was getting lots of resources from the States and foundations. And one of these resources was this desal plant that was running with solar panel, or solar power. And he was like, "Are you interested in getting one of these?" And I was like—Seven days after I'm like, "Of course, people—I'm sure people have no drinking water, definitely." So, I got those... those desal plans. And then I quickly understood that I was one of those people, you know, that was actually going through the aftermath, but at the same time was healthy and was okay. So, I had to give back. So, immediately, after a week, we—I got ready. I, you know, contact my staff back again. I made sure everyone was fine. And then after that, we put together relief program that was able to provide support to... to the people living in the watershed, and beyond as well.

Melody: And, I want to ask you about that but before I ask you about the relief program, I wanna go back to your... your surprise at your own reaction because usually your action would be, "As a professional, here's what I'm gonna do."

Brenda: Mm.

Melody: But you seem to have been surprised by your reaction as a person.

Brenda: Yes, yes.

Melody: So you experienced the—It was so wor-

Brenda: It was a shock. Yeah, it was a real shock. And, and you know, it was the more—The more in shock I was, the more surprised I was, but the more I wanted to be close to my, my kids and my family. My, my mother, just to give you an idea had, had just done, had a double mastectomy a month before. So, she had to be in an AC environment, no humi-, no high humidity or anything like that. So I was very concerned about that as well. So wanted to see how I could move her to a place where she could be, you know, more away from, from any bacteria or anything. She still got, infected and—And it really got complicated but the, those are the kinds of things that we went through. And again... [sound of phone vibrating] we were absolutely fine. And, and, and, and still—I mean we, we went through crazy things but we, we were still healthy and going and, and okay.

Melody: You talked about a relief program.

Brenda: Yes.

Melody: So that was your, your department or agency? Yeah, if you need to. [referencing phone call for Brenda]

Brenda: No, no, no, I don't...

Melody: If you don't catch it, it's, uh...

Brenda: Need to. I'm sorry, I just think it's gonna...

Melody: Oh, okay.

Brenda: ...bother you.

Melody: Oh, Okay. And it's, it's on vibrate, right?

Brenda: It's vibrating, yeah.

Melody: Okay. [inaudible 12:14] .

Jamie: There is a, a [inaudible 12:15] , yeah.

Brenda: Um...

Melody: Tell me about the relief program. And so what you—What were you—Okay, with the relief program, what was it that you had hoped to do, and what were you able to do? And then what things were you not even able to do that maybe you would, under other circumstances you would think you could do? Do you, if that makes sense?

Brenda: Well, what we did for, from, from our platform—We've been in operation—the San Juan Bay Estuary Program has been in operation for 24 years. So, we have a very strong platform. We do have programs that are, that do have the resources. We have the right contacts and everything. So, I was in a good position to quickly react, and deploy resources, and contact people, and do quick and, quick assessments. So that's exactly what I decided to do. I contacted the fishermen which are our partners and asked them, you know, "Is your boat in good shape? Can we just quickly go through the canals and the bays and see, you know, wha-, wha-, what's the damage and how are people doing?" And, and so, believe it or not, going through the canals is easier to, than going through the, through the roads, because of all the debris that was obstructing the, the path. So, we did that and through that assessment, I was like, "You know, this is—This is something that is gonna require more than just restoration. It's like community support, the environmental assessment, and support to the infrastructure, green infrastructure and gray infrastructure. And also provide some direct relief to a reserve that we manage in the metropolitan area, the only national resource that we manage, which is the Condado Lagoon.

Melody: Do you—Did you actually get on the boats too, or just your staff gets on them? Or do you—Did you go around and ser-, do, you know, watch and take part in some of the assessment?

Brenda: No, no. I was, I was, I was there. Most of my, my technical staff was not necessarily able to, to come with me. I had one of my, my key staff. She lives in [indecipherable 14:34] and I didn't know if she was still alive or not. Um... [laughs] believe it or not, it's crazy. Like no one was able to, to get there by the time I was doing these assessments. Um...

Melody: What did you see when you went to assess...?

Brenda: Through there? Um...

Melody: Yeah, what did you see as they, you, the boats were taking you around?

Brenda: So, we, we depart from, from the Cantera community, which is an underserved community that is part of the eight communities that are adjacent to the Caño Martín Peña, which is a very popular canal in the metropolitan region because it really connects the bay with the San José Bay. I mean San José Lagoon. But that canal is actually obstructed with lots of debris. And we have a key infrastructure project that is, that is planning on like dredging the canal and making the water flow from one side to the other. So, one of the communities there is the Cantera community. And so, we left from there with, um, support from the fishermen that live in that community. Went through the San José Lagoon. And what was shocking for me was to see the devastation of most of the, the houses with no roofs. But actually, the ones that were more destroyed were the ones that had no buffers on, that had, that did, did not have the mangrove forest right next to the San José Lagoon. So that really, really was an important fact for me [indecipherable 16:11] 'cause I was, you know, I really wanted to make sure that people realize the importance of this vegetation and of this green infrastructure for our own safety. Especially if we wanted, um, make sure that we, we re-, rebuild in a sustainable and resilient way. So, I quickly made sure that was one of the, of the data that was noted there, um... and then continue to move. But I noticed too that the bird species were actually quite present. We, we counted around 23 bird species right after the hurricane. So, seeing that high number of bird species, um... in, just through that canal, uh, was actually, uh, an impressive, uh, fact as well. So, in terms of the vegetation that really supported the community and

the, and, and those bird species, the natives one, and also the migratory birds also were strong enough and sort of survived.

Melody: Yes. So, that was, that was what I was gonna ask you. What did that mean to you when you saw that many of the species still there? Was that—I mean, it sounds like that's a good sign, but does it mean s-, so is that—You took that as a good sign?

Brenda: I took both as good signs. The fact that, [indecipherable 17:32], the, the mangrove forest were, were burned. They were destroyed. I mean, they were—It's not like we had, that they were dead. But they were, you know, pretty, um, destroyed. And, and they looked totally burned. So but I, but I saw that as a good sign because they really were the first sort of shield and supported the, the, the community.

Melody: Do you—And I know that—And so you were here through Maria. You grew up here?

Melody: Do you remember any—From your childhood—So, I wanna take you back.

Brenda: Okay.

Melody: 'Cause you lived with storms all your life, really.

Brenda: Yeah.

Melody: But up until Maria happened, do you remember any storms in your childhood would, that were just really bad? Or maybe that first storm that made an impression? And what your parents or your grandparents might have been doing. what they told you. How they got you through. Just like you talked to your children during this storm, after the storm. Can you remember, in your childhood, going through a storm and what your parents or grandparents said to you?

Brenda: No. I remember going through, through other storms before. But frankly, after the storms we probably had no water for a month or no electricity for another month. But, you know, going through...and it was just, you know, and it, ma-. What I saw in terms of like the impact from those storms was a specific impact in one area. The difference between those experiences and, and, Maria was that Maria really destroyed Puerto Rico on sort of an island-wide. I would say probably two-, 10 percent of the island was kept okay, but the other ones was actually you know—And it totally destroyed and that was the only difference. Like, I wasn't prepared to this hurricane at all.

Melody: Of just how massive and widespread...

Brenda: It was.

Melody: ...it was throughout the island?

Brenda: And I, and I, and I think it—Hurricane Irma which was two... visited us two weeks before, prepared us for Hurricane Maria. We had already obtained enough goods and resources. And then, when we heard about Maria, we still had those, still had time to get more. So, that really helped us, and prepared us, I think, mentally a little bit.

Melody: Now I want to talk about drought. We talked about the hurri-. Unless there's anything else about the hurricane that you want to say, or anything about preparedness. Or anything you'd do different because of hurricane. But in fact, you came in here, I think you saying that you were making preparations or doing something...

Brenda: Yeah. Yeah.

Melody: ...to deal with the hurricane, the new hurricane season...

Brenda: Mm-hmm.

Melody: ...that we're in now. And so, is there anything that, personally, that you and your family are doing different-, differently? And also professionally, anything your organization is doing in a different way because...

Brenda: Yeah.

Melody: ...of lessons learned from Maria?

Brenda: So, what we're doing different, because of Maria, is a different approach. We're not only just, doing water quality sampling and dealing with water quality folks and, and colleagues, but we're also managing issues related to renewable energy. And, you know, support to communities like mental health, support. So, we're—Our approach is way more comprehensive now, which is the right approach. But we're now feeling like the urgency to do that and, and, and employ it in, you know, as we, as we move. We're—We've also been approached by, by, by the federal agencies that will be supporting the recovery process, because they want to see how we've been able to identify and correct illicit discharges throughout the watershed, so they can actually replicate that throughout other watersheds. So, within, sort of, codifying the work we, we work, just so other watersheds managers can get, you know, that technical information and develop some capacities so they will eventually react more quickly to events, you know, like the ones we, we experienced with Maria. An idea [clears throat] of what we did immediately after Maria with this project in which we are detecting and correcting the illicit discharges is that we were not only able to see if those, those cases got worse, but we were a-, also able to run analysis in terms of, of bacteria and, and, and problem sol-, public health problems that were of concern to, not only the community, but also to the, the government agencies as well. Such as the [indecipherable 22:56] for example, which was a major, major concern for most of the Puerto Ricans.

Melody: So, what you're doing with that in being able to identify, or detect, and also I guess, stop or correct those illicit discharges is becoming sort of a best practice that others can model...

Brenda: Correct.

Melody: ...in some ways? Okay.

Brenda: Yeah. Yeah. And one thing that we will do on the, on June 1st [2018] is to support one community, one specific community, and that one is in Vieques. Even though our study area is in the metropolitan region, we feel like we have to move our resources and the way we work to other areas, remote areas that are still struggling. That they won't see a recovery any time soon, but

they're—That we still are providing relief to this community. So, I'm, I'm going to be just there with them, supporting them and providing them with some capacity buildings for...

Melody: That's excellent. Do you feel like people, and this is my last hurricane question, then we'll go to drought and talk about what you're able to do from New York.

Brenda: Okay.

Melody: Do you feel that people are more apprehensive now about hur-. I mean, all—And again the island, you're used to hurricanes...

Brenda: [inaudible 24:20] .

Melody: ...that it's a part of life, but Maria was so different. That was different. Are, do you feel like people are apprehensive going into this hurricane season?

Brenda: I don't, I don't think we're ready. I don't think that, you know, psychologically we are ready, to, to, to receive another, another major hurricane. We—I remember, a month ago we had a blackout, a major, an island-wide blackout. And I was just having a conversation with the Puerto Rico Aqueducts Sewer Authority on how to really develop some redundancies in this, you know, water pump stations. Just to make sure that things are continuing to run, you know, while we have other, other events like this one, and had this blackout. And we're like, "Come on. Let's [laughs] get ready," you know. "We need to, we need to hurry up but, but just give us some time." But, so, so I don't, I don't think that the, what I experienced a month ago, and that was probably like seven months after Maria, right, was like people are not—Like their faces and the way they reacted after seeing that the entire island was already, was o-.... Again n-, with no communication, really made me realize that, that the, the Puerto Rican community and the government [indecipherable 25:46] just not ready.

Melody: My gosh. Do you feel like when that blackout happened, did everybody look very discouraged and disheartened, like, "Oh, God. If this is where we are right now..."

Brenda: Yeah.

Melody: "...then by the time hurricane season gets here..."

Brenda: Yeah.

Melody: "...no way are we ready"?

Brenda: Yeah. We're not gonna be ready, yeah. So...

Melody: I hope to God. I hope you guys don't have another hurricane this year, like none.

Brenda: Like none.

Melody: Not even a... yeah.

Brenda: I don't want any.

Melody: You don't, you don't need it this year at all.

Brenda: [laughs]

Melody: Not that anyone ever needs it. Let's talk about drought.

Brenda: Okay.

Melody: You were—So, the drought of 2015, although sev-, I mean very severe, it...wasn't the first time you guys have had drought. Have you—Is, is drought something you have been aware of even be-, well, before 2015? And...

Brenda: [clears throat]

Melody: ...if so, tell me how so.

Brenda: So, being, being without water or access to water, it's, it's something that, you know, we have experienced in Puerto Rico. And I remember when I was a child going through droughts, periods and, and thinking, you know, "What is a tropical island going, you know, why are we in this situation?" And thinking maybe, you know, the, the agencies are not just managing, you know, this reserve as they should, and just being very critical about it. But, you know, o-, being without water, it's something so uncomfortable that I do—Even though I had experienced probably like three episodes like those, I do [laughs] remember very clearly, you know, what I, what I went through. And, and it's just a, a very, you know, uncomfortable process. [laughs].

Melody: And tell me about that. Personally, when you had to live through drought, what was that like? How was your life, and your family's life, affected by that?

Brenda: I mean, the entire, you know, going through a drought really changes your routine entirely. You need to, to just have to collect water in these bins and have to make sure the water is clean if you want to use it for just to wash your teeth. And, y-, y-, you have to be extremely car-, careful. And my family really makes sure that all of those elements, you know, the safety ones and, and, you know, us being like absolutely clean and everything, were present. But what concerns me is the people that do not have the resources to have that quality-control process in place. And so the—I think that thinking about Puerto Rico with the high level of poverty that we have, it's, it's a major concern if we, if we go through another drought episode again.

Melody: So when we talk about going through an episode again, 2015, very bad.

Brenda: Mm-hmm.

Melody: And, but you were not here. Tell, tell me why weren't you here. But what you were able to do...

Brenda: Yeah.

Melody: ... as far as, you know, assisting your island during that time.

Brenda: During the 2015 drought episode, I was in, in New York. I was part of the Puerto Rican diaspora working, not only being part of the Puerto Rican Diaspora, but I was also managing the

office of the government of Puerto Rico, the one that is based in New York. So, I was dealing with issues related to the fiscal situations, the public health crisis, the environmental issues that, the kind Martín Peña and Vieques were going through. But then we had this situation with the drought. And with that, I had to also try to find resources to, to come up with a solution. It was hard, of course, you know. We had no rain. But we, you know, the, the, the Puerto Rican community thought they could help somehow. So, they were, you know, they were contacting me to, for me to get resources for them to send water bottles to public schools in Puerto Rico that were closed and were not able to, to provide the education that the, that the kids needed, because of no, no water.

Melody: So how were you—What were you able to do? So they were contacting you to...

Brenda: Yeah.

Melody: "Let's do something." And when you say they were contacting you, um, who? Was it the government of Puerto Rico that was saying, "Hey, this..." or other Puerto Ricans in New York City with you, or, or your organization? Exactly who was saying, "Hey, let's do this.?" And, and, and did you get it done?

Brenda: Well, my, my, the office I was running was, is actually an office that is part of, of the office of the government, governor of Puerto Rico. So, I was—My, the whole strategy was actually managed alongside with the, with the governor of Puerto Rico. The, the people that were contacting me were the Puerto Rican diaspora. The people from the community, those with their resources thinking that they could, you know, provide some support from abroad. So, they wanted to find airplanes just to put lots of like, you know, water bottles there. And, and so we, you know, I was moving in that direction because I wanted to support them. But it really was so bureaucratic and so difficult that we weren't able. For my part, I was, I was just not able to, to, to provide that support. But I, I do remember going through, you know, the problems of, of finding a solution. And, and thinking about how to best solve this from abroad.

Melody: And you were abroad. It's happening to your country. What were, what were your concerns and worries? And you have family here. And so, from a personal standpoint, what sort of things were you—I don't know if you were checking on the family, or how did it impact your family, if it did at all, your family members...

Brenda: Yeah.

Melody: ...who were on the island?

Brenda: Well, I mean, they, again, we are Puerto Ricans living in an island, and, and, and going—we've gone through these situations before. So, just checking on them. And it was interesting that part of my conversation with them, daily conversation, was, you know, what they had to do in order for them to adapt. And, and so, and, you know, and live a decent life even though they were experiencing that. It's just—It's hard to experience this from abroad, because you feel a high level of anxiety. You want to support. I do remember, right after Maria, thinking, "I'm so glad I'm here." Because if I were in, in the United States or other parts of the world, I would have been absolutely in, in, in shock even more, because I really wanted to support. So, I do remember seeing most of my friends and, and former colleagues just calling. They're calling me and, and trying to support. And instead of saying, "Just leave us alone. We'll, we'll deal with this," I remember

thinking, “We are, you know—This is how you can help me.” Because I, you know, I put myself in their position. So, thinking about the drought is exactly how, how I felt. I feel like trying to support even though, you know, it was just hard for, for us to, to provide any level of support and [laughs] water.

Melody: And it sounds like that was the feeling for so many people like you who are from Puerto Rico, but had, you know, were in the States at the time, a lot of worry about what was going on back home. Is there still a great deal of—I mean, you're, you're not in New York anymore.

Brenda: Mm-hmm.

Melody: But still a large Puerto Rican community in New York. Is there that sense of community and still a great care for this island?

Brenda: Oh, absolutely. Absolutely. I had to go to New York after Hurricane Maria, has, and it was like in around November. And I was there for a meeting with different folks from Puerto Rico that were living there, just thinking, just giving me feedback. And, and me providing them some visibility as to what we were going through so they could see how they can best help us. So they, they'd, you know—We have, we have, we have a large number of our community living in, in the United States. We're nine million Puerto Ricans. And, you know, three of those are, are the ones living in, in, in Puerto Rico. So, we consider us a whole, you know, community. And so that's—I mean, once you leave the island, you still think that you're gonna go, come back. And that's exactly what had happened to me. I lived 11 years in the States and decided to come back, and I don't, you know, I, I'm happy here. [laughs] I'm happy to be back.

Melody: [laughs]

Brenda: And relieved to be back, actually.

Melody: Now that you are back, I'm thinking, now that you are back, you weren't here for 2015 drought, but drought's still a reality. And it's, this is an island. So, drought is even more—I mean, it is an important concern for everybody, for any nation, but in particular islands have unique concerns and challenges when it comes to drought. So, um, with—And I, and I know your office, the types of work you did, and things you, you, the role you played after the hurricane—But your office, what role does your office play [inaudible 35:22] drought, in looking at what's happening now, where you think...

Brenda: [clears throat]

Melody: ...you're going for the future, and what sort of strategies are you, it, are you guys developing for the future?

Brenda: Yeah, one thing that I'm, I'm working on, from, from my organization is safe water. We want to make sure that the Puerto Rican community do have access to safe water, and that they don't feel, you know, concerned about the quality of the water they, they are being in contact with. That's why, you know, I welcomed the desal plants that I received from the foundations. I not only got one, but I have four, in total. And my role is actually to empower the communities on how to use those plants. So, I deployed four of those plants in communities that have no access, no, to

water and are in remote areas. One of them is in Humacao, which is next to Yabucoa, and that's exactly through what, exactly where the hurricane actually hit the island. That's how it started. And the other one is in Vieques. It's a [laughs] remote island. The other one is in Culebra, another remote...

Melody: Mm-hmm.

Brenda: ...island, and another one in Loíza. So, those are communities that are, that do not have the resources to move quickly, that if they get a flooding event, they will have, there will be no communication with, like, the metropolitan region. And those communities, those municipalities that are in, in those other two islands municipalities, they, you know, they just need access to, to safe water. So, that's, that's as far as I, you know—getting ready my community. [laughs]

Melody: So, but you deployed it to, to those four communities.

[beeps]

Melody: Do you feel like there are other communities that could use that, that also? Like how many more would you, you know, ideally?

[crosstalk]

Brenda: I could probably deploy maybe 20 more. I mean, there are communities that are in really critical conditions and in vulnerable regions that do need the, the support. So, I'm not only deploying those, but also getting ready areas that are sort of like vacant lots. So, I'm transforming those vacant lots with green infrastructure, and also providing some training to the community on how to really take water quality samples so they know if the water quality is in good conditions for them to desalt it and, and drink it. So this-, you know, there's a whole program that I'm putting together just in case we don't, we, we, we lack water, or access to water.

Melody: Brenda, describe what that looks like when you say, "You know what? There's some vacant lots, and we're putting in some green infrastructure." So, tell me, when you say like, "I want to go in this community, and I see these lots," what, then? What happens in those lots? What's really being done and who's doing the work?

Brenda: So, the, the community is the one that is really doing most of the work. I'm just providing the capacity and the resources for them to be absolutely empowered. So, what I'm doing is identifying nonprofit organizations, or grassroots organizations, or faith-based organizations, that do have some strong links to the residents and do know exactly what is needed. And then I identify with them vacant lots or areas that could eventually be like—The, the, the hope is for them to sort of redevelop or revitalize their, their region. And instead of developing those with like concrete, I'm teaching them the importance of green infrastructure. And so, some of the areas like with flowers, but also likes native plants, and some specific techniques for them to, to put in place. So it's just the whole, like, very environmental, you know, [laughs] perspective, but they, they are really embracing it. And they go through, through, workshops where they exchange-, you know, exchange and, and share with us what is it that they see happening there in the future. And then after that, we provide the resources to transform the vacant lots. And, and then from there, they intake the water.

Melody: And when you said the resources, like what would those entail? What sort of things do you provide?

Brenda: So, I mean, first with the, with the desalt plants, and then with the resources, for, for them to transform, um, those are plants, specific rocks. And, you know, there's the technical expertise as well.

Melody: And I don't know if any of them have transformed in such a way yet that...

Brenda: They have.

Melody: ...but do you have like one vaca-...?

Brenda: Yes.

Melody: Yeah? Is there a vacant lot where you can see where they've done the planting? Or maybe they, at the time, there were planting, or at least now, when you can see it's—If you've got some photographs, some images that we could use?

Brenda: Oh, yeah. I can totally share those with you.

Melody: That'd be great.

Brenda: Yeah. I have...

Melody: That'd be great.

Brenda: ...One, where, where they are now going through the transformation.

Melody: Mm-hmm.

Brenda: So, you'll see them like, you know, tracing some ideas and going through the workshop. Others, you will see them getting water from the river or the estuary system.

Melody: Mm-hmm.

Brenda: Yeah, I can share those with you, so you have them.

Melody: That would be so helpful. Thank you. Let me see what's next on here, 'cause you're doing great.

Jamie: What's happening tomorrow?

Brenda: What's happening?

Jamie: Yeah.

Brenda: I have... [laughs] I have something in the—One of the creeks, it's going to have a major transformation. So, we will be, we'll be there. This whole thing of the illicit discharges...

Melody: Yeah.

Brenda: ...It's going to be like a—I think it's going to be a major news right now. And we're going to be taking a few reporters to this creek just to show them that what we did is really working.

Melody: Good.

Brenda: So, they will see then like [pause] this is, the government of Puerto Rico hasn't really been investing.

Melody: [sighs] Yeah.

Brenda: You know, the right amount of money. That's what it is.

Melody: Gotcha. No, understood.

Brenda: [laughs]

Melody: So, really, you—Because you're so concise and answered all of the—The only thing I wanted to ask you, some of these new methods, these mechanisms that you have in place.

Brenda: [coughs]

Melody: And empowering communities and that sort of thing. Are those things that you guys were doing before or are they just very new to cope with the most recent droughts? That was sort of my wondering like it. Are these some new mechanisms? If not, do you have some new mechanisms that you are going to be incorporating?

Brenda: If we, if we experience a drought? Um...

Melody: Because you've experienced drought, and you know that you need to do things in a new way to cope.

Brenda: You know what?

Melody: Mm-hmm.

Brenda: I, it's not on, it's not in our radar, frankly speaking. We, we, we think what we have in place is gonna support the community get access to safe water. But we don't, we don't have, we don't have the, a whole protocol on how to really mobilize, and react, and support the community in the face of a drought, frankly. We, we do, we did get funding just recently because of the hurricane from the State Revolving Funds. I don't know if you've heard about that source of funds. It is from the EPA, and it's really, it's a, it's a water bank. And it's a bank that they invest, funding for major retrofits in water infrastructure, and then, and then it, it all revolves. So it's sort of a revolving fund. So, we get funds, we got funding from there to develop a mitigation plan. And I think that through that mitigation plan, I'll be able to explore different possibilities. My mitigation plan, [indecipherable 45:54] I call it, it will be like the first watershed-based mitigation plan being approved by FEMA in Puerto Rico. And I don't, I don't think that many jurisdictions in the United States do have mitigation plans that are watershed based. Most of them are developed by municipalities.

[phone vibrating]

Brenda: And then through there, it's when, you know, they get support from FEMA to, to do the relief and recovery. So, what I'm proposing is the, is the watershed-based one.

Melody: So, that's really a big deal.

Brenda: It's a big deal.

Melody: It is a big deal.

Brenda: And it's, it's something that if we do it correctly, we'll be able to empower and help people adapt as we develop the plan. So, we don't have to wait until the plan is developed so people understand it and then... [audio echo] ...you know, adopt it and it's something that will be, will help the community get ready.

Melody: So, that is a new coping thing that you do?

Brenda: Exactly.

Melody: Yes, that is.

Brenda: It's a total new one.

Melody: Yes.

Brenda: It's something we didn't, we didn't have in place. We also get funding to develop a green infrastructure master plan. And that master plan will be for the entire watershed. Again, it's 97 square miles. We'll be able to evaluate the, the percentage of areas that are green, what is needed, and when do we need to start transforming areas.

Melody: No, that's good. I'm glad that you added those things. And then just to clarify, what you're doing in the communities like the, you know, creating green structures in the empty lots, that sort of thing. Was that something that you were doing before 2015, or is just something that developed after the two-. Okay, so that's also innovative?

Brenda: Yeah, and that's absolutely after all of these major episodic, episodes we've been experiencing.

Melody: Okay.

Brenda: And we've been doing those in a very rushed way. And those are the things that before these episodes, these heavy, you know, climate events happen...[background conversations] ... people did not understand. Now, people are more open to this techniques and open to this new ways of transforming the, their cities or developing their cities. Which is, um, which is great news for sustainable managers like, like me, that have always, you know, advocated for, for this measures and it's not after this, this major hurricane that people are absolutely open to any kind of, of, of new, you know, techniques.

Melody: Mm-hmm. And really, it's almost that hurricane and the drought sort of overlapping and working together and, you know, all of these extreme things, sort of working together for peop- that's very eye-opening for people?

Brenda: Mm-hmm, mm-hmm.

Melody: And causes them to actually respond now.

Brenda: Mm-hmm, mm-hmm.

Melody: I think that's everything.

Jamie: Yeah.

Melody: Jamie, did you have anything? You're really [laughs] very, very good.

Jamie: Uh, yeah, she is. Um, I, I will agree, though. I think there's a couple of things I'd like to tease out a little bit.

Melody: Yeah.

Jamie: [inaudible 49:00] actually. One, one of, I—One of my questions was actually going to relate to the last things that you've been talking about with climate. And I wanted to talk about sort of looking, looking forward to the future. Could you talk a little bit more—I, I, feel like we, we could tea-, we should tease out a little bit more about, in your opinion, what are, what are some of the extreme weather events that you're most concerned about in the future?

Brenda: In the future?

Jamie: Yeah.

Brenda: I am concerned about the, you know, other hurricanes, things that, that are as intense as the one we just experienced, that, you know, was Hurricane Maria. Also concerned about tsunamis, just because of what I've been seeing in terms of like the tecno-, tectonic movements of the earth. So, I'm thinking, okay, if something moves, the other part will moves. And, and so that always concerns me. And so I always ask, ask myself, are we really ready to, to real-, you know, to react and to support our community? We did actually get, get a moment. It was around, around midnight when we received an alert of a tsunami. And that happened maybe two months ago, two months and a half ago. I always turn my phone off because I work so hard [laughs] during the day that I'm not concer-, I don't want to think about anything. So I turn it, I turned it off. When I woke up around 4:30 or 5:00 in the morning, I saw all of these messages from people, really concerned, and like, "Move away, Brenda. You have to get up. Get up." And, and so I was, you know, sound asleep. No, really didn't notice anything. But imagine, you know, I live right in front of the beach. Imagine if something had, like that really had materialized. I would have been absolutely, you know, dead. We had no way—I don't, I don't think that the sound system, the sirens, were even working back then. So, anyway, so those are the [indecipherable 51:50], kinds of things that I'm, I'm worried about.

Melody: Mm-hmm.

Jamie: Okay.

Brenda: Yeah.

Jamie: Cool. So just, this is on a completely different topic, but how did you hear about this workshop? And, why, why did you decide to come to it?

Brenda: So, I'm, I'm—there are tons of workshops related to climate, events and in, in Puerto Rico. And I'm, you know, really grateful for everyone that is thinking how to best help Puerto Rico. And thinking maybe this is the, the right moment to go and actually have these brainstorming sessions and, and try to bring solutions to...and just get them ready, or us help others with our own experience. And so, we, I, I received an invitation, a direct invitation from, from the organizers. They wanted to hear, you know, what is it that, that I was working on. And so, I'm part of this group that is called the ULTRA, San Juan ULTRA. And so, that group actually is evaluating the Río Piedras Watershed. It's the, it's one of the main watersheds that I'm managing, that are part of the metropolitan area. And so, I guess, you know, they got the information from there, and invite me to be part of it.

Jamie: Cool. Finally, last question. All right, no, second last question. Sorry. The, thinking about it, there were so many, you, you were talking about earlier when the [indecipherable 52:37] hurricane passed through you, you were a, you were impressed by the, the birds that had remained, that had survived. I was wondering if I might be able to talk with you just a little bit more about, sort of, wha-, what the effect of the, what the effect would, what the, what are the effects that you've observed either with the hurricane or the drought on the region's ecosystems? How, what changes have you seen?

Brenda: So, I saw a great deal of destruction in the vegetation and the landscape, the green infrastructure landscape. It was, it was, again, it was the first line of defense, you know, [indecipherable 53:10] ways. So, I, I think that's one of the reasons why they were so destroyed. The wind speed were so heavy that they totally, you know, knocked them down. I think other areas that were amazingly transformed were the coastlines. Some areas that actually were considered, with no beach whatsoever, I do have actually plenty of sand. Other areas absolutely eroded. And so, the entire landscape really got transformed. I was very impressed with the, you know, the, the rainforest as well, and how devastated it was. So, my impression was, I'm a little bit more modern in the way I assess things. So, I was like, you know, this is the tropics, you know, we, our vegetation, our nature is, you know, used to this. The ones that are suffering are us humans because we have to encounter and, and just make sure our folks are, are in good shape. But I think that the, the nature is going to restore itself. My projects and the ones that I'm putting together are just ones that are done in an intentional way for us to continue to live in a safe way. So we, we sort of adapt to, you know, future climate events so we can continue to live in, in this island. And I think we should have done this many decades ago. But it wasn't until now that the government and the private sector, it's, really are, are thinking, you know, in a sustainable way.

Jamie: OK, great, finally.

Brenda: Yeah.

Jamie: One last question. In your own words, what is drought?

Brenda: Lack of safe water. Yeah. Which is a universal right. Yeah.

Jamie: Okay [end of interview –tell Jamie to cut this interview tape at this time code]

Brenda: [laughs]

Transcription by CastingWords