Transcript:

**Olivia Gieger:** If you're listening,  to this you probably already know who Rick Bennett is. If not, you're in for a treat.

The northeast’s regional scientist is a wealth of knowledge, a passionate scientist, and an eager conversationalist. He's well known and well-loved throughout the Northeast region for his pioneering work leading the Sandy recovery program, which oversaw the distribution of over $103 million to restore places damaged by the 2012 superstorm and to spark projects in other vulnerable areas that bolster coastal resilience against rising tides and increased storms. Rick's leadership through the Sandy program has set a precedent of how we can restore landscapes for a future of ever-changing climates.

For climate close-ups, I'm Olivia Gieger. This is our conversation

Hi Rick, thanks so much for joining me. Let's first start off by talking about how you ended up here, where you were before, and what led you to be at the helm of the Sandy program.

**Rick Bennett:** So I've always been engaged in in kind of restoration work. I'm a fisheries guy by trade, a contaminants person, so that's kind of an evolution of me, where I've been--always been focused on the ground, and Hurricane Sandy came along, of course that was 2012.

Like all disasters you get a disaster relief bill. We knew that was coming, and so I was asked to kind of coordinate that. The regional director asked me to do that I was like ‘well can I think about that?’ So I went thought about it over a weekend, and I came back in and I was like well, I said ‘If all you want is somebody to run the program to make sure we can dot the i's and cross the t's to withstand an audit, I'm not interested.’ I said ‘if I can really take a more progressive view of what we need to be doing on the landscape, what are the right things--and I know all that other stuff goes with the turf--then I'm interested.’ At the time Wendy was like ‘no I want that to happen.’ I was like, then I'll do it.

I will tell you it's probably the best decisions I ever made. I love the program; I've had a blast doing it. You know your job should be fun. My job has been fun-- for the most part.

**OG:** So tell me about that progressive approach. What made Sandy different?

**RB:** So one of the things I would like to say about Sandy that's different than any other disaster program : You always get money to fix the things that got broken, right? And we got those funds, but we also got a different pot of money, called resilience funds, which were designed not -- they weren't restricted to where damages were occurred. It was designed to do projects to avoid damages in the future, so it wasn't tied to -- it's the only one I've ever seen like that. So we had these two pots of money, and I oversaw both of them. That made it that made it kind of really unique, and I always like to highlight that as a result we've done some great projects on the landscape.

**OG:** Can you tell me about one of those projects? Give me an example

**RB:** I'll give you Martin National Wildlife Refuge. That’s Smith Island in the Chesapeake Bay. It’s a waterman crabbing community, not easy to get to. I think the highest elevation is maybe three feet /four feet -- something like that. It's not very high. So we put a big project in there, a $9 million project. So when those storms come out of that Northwest, they were losing eight to ten feet of marsh a year, three acres a year. So the idea was well let's put a living shoreline in. Because it's a high energy zone, sou have to use more structure, right? So we put these what are called headwind structures, so they're rock.  They look like little breakwaters but we had them spaced with openings so that water and sediment can move up onto the marsh and animals can migrate back and forth but still offer some protection from that erosive storms.

**OG:** Yeah so why was this important and what is the value of restoring and preserving this ecosystem?

**RB:** The first question people ask is ‘well this whole island is at risk from sea-level rise and may not survive, so why are we doing this project’ right. Good question.  And the answer I have --I had then and I still have now -- is that particular habitat is so unique and so valuable in the Chesapeake Bay there's nothing else to replace it. So, it's kind of like sometimes you need to protect things even though you know you're going to lose them until you can transition other to fill in these gaps.

That's another piece of resilience. People just think resilient sometimes it's just transitioning to get to other habitats. But you got to hang on to some until you get

**OG:** So take a minute and tell me a bit more about this idea of resilience. What was the focus the philosophy or the big broad guiding questions that influenced you in this project and in the Sandy program more broadly?

**RB:** How do we really promote coastal resilience into the future? So it's easy to say that but what does that mean? How do you factor in climate? How do you factor in sea level rise?

You know one of the things I would say is you design to future conditions. You don't design to the past; You're informed by the past, but you design to future conditions. I don't care what kind of restoration you're doing-- a species restoration habitat.  We always look at historic --where has it been, what its populations have been. And then we design our restoration to improve that habitat. That's the way it worked for a long time because we were in a pretty stable climate. We're outside of that stable climate period. This is where I say you need to be informed by the past look to the future. That's a different mindset than we've been in,  as resource restoration people forever.

**OG:** I also want to make sure that I ask you about monitoring --that practice of collecting data and measuring outcomes of a project after it's done. When I was preparing for this interview everyone was like ‘Oh talk to Rick about monitoring!’ ‘Make sure to ask him about monitoring!’ So tell me about monitoring! Why is it so valuable in projects like this?

**RB:** I could talk forever on this one! There was a desire to know we're putting all this money into resilience, so how do we know if we achieve it? So they created a team to develop metrics that would that you would use for the type of projects, that were funded, that would help answer that question. So it was like these are what you need to know to decide if a project is performing and met what it is you designed for. Is it offering protection from wave erosion? Is it providing movement of sediments? Is it providing, you know, habitat for species? Whatever the project designs are. And it's like, all right, you're spending $38 million on this project, how are you going to know if it works? And I was like ‘Aha! That's a really good question!’

You want to know that because then you won't make the same mistakes twice. If it's not working, why isn't it? And you can fix that problem on that project, and you don't make that same mistake on future projects, right. So you're learning as you go isn't that what science is all about?

**OG:** Let's go back to that Smith Island example now. I want you to tell me a bit more about some of the lessons that you learned from that, that you can also apply going forward to Future projects, whether it is these concrete measurable things or whether they're abstract ideas that you can carry forward.

**RB:** So that Martin Smith Island one is a classic because you got a waterman community out there that basically hate the feds, and so here we are showing up with them, and we want to do this project. I'll credit our field folks. They went and talked to the community, and they had them involved in the design--here's what we're trying to do; where would placement be good for you? or bad for you? we don't want to screw up your day-to-day system--So they were part of the process.

I can remember talking with a local community member who told me--he's like ‘if my grandpappy knew that I was talking to the feds he'd roll over in his grave but that was then and this is now.’ he goes: ‘Now you're our heroes, and I was like whoa. that was that was amazing. And then I thought about that. I was like, well why? How did he get there? It's because we had a great person talking to them, working with them communicating with them, valuing their culture, their heritage working that into the design.

**OG:** Now it's 2022 we've reached the 10-year anniversary of Sandy and the Service is sort of at this pivot point to look for its next big direction. What do you hope that, as the service moves away from Sandy, what do you hope the legacy of the program and your work in it will be?

**RB:** What I want to see is a world at least in the Service that as we move forward, we do all the things I just talked about; we plan to future conditions; we take into account all the benefits to sell a project.

I would say another big one for me is that we may be working on a site for a species. Great. But  when I do that project I'm in there for a systems restoration. If I restore the system, everything else will follow. I may be here for salt marsh Sparrow; I may be here for River Herring and I may be here for whatever reasons. But that's where it ends. And now I'm into systems restoration. Make it a functioning system, and all those other things will come. That's a that's a legacy I would like to see. That's a direction I'd like to see continue.

**OG:** And anything else?

**RB:** Another legacy, I guess one of the things I'm really proud of is that Sandy is

looked at-- all the Sandy projects are looked at as you know now, we use the term ‘nature-based solutions.’ And everybody's turning Sandy: what do we do there? How did they do that? They learn from that; it is influencing how other operations and other things are going on across the nation.

It wasn't me, it was a lot of people involved to make that happen. I was just sort of the mouthpiece. I've said all along it's a whole team. It's a whole bunch of people that make this happen. It's not about me; it's about the work.  And it's about what's happened and the success of work. It's not the success of Rick. It's all the efforts by a lot of people but it's the outcomes associated with implementing projects that is makes a difference. And that—when people equate success by saying ‘hey look at that! Look at what they did over there’ and that influences them that's truly success.

**OG:** I think that's a great place to end, Rick thank you so much for joining me

today it was so great to talk with you, and I hope to talk to you soon.

**RB:** All right. Great yeah thank you All right.

**OG:** And thank you for listening to this episode of climate close-ups, our series on leaders within the U.S Fish and Wildlife service who are changing the ways we think of conservation in a world of a shifting climate.

Thank you again to Rick Bennett for joining us today thank you to Mason Wheatley and to Keith Shannon for digital support.

Interviews and editing have been done by me, Olivia Gieger. See you next time.