After the Fact | The Financial Toll of Flooding—Part 2
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TRANSCRIPT

Dan LeDuc: Welcome to "After the Fact," a podcast from The Pew Charitable Trusts that tells the stories behind the numbers shaping our world. This is the second part of our series on how communities prepare for flooding. You'll recall from our previous episode this data point: $25 billion dollars. That's how much the National Flood Insurance Program is in debt right now. One reason why is that some places keep flooding over and over again, and have to be repaired over and over again. Norfolk, Virginia is one place trying to break that cycle, so Pew's Fred Baldassaro went there for a firsthand look. He met with Skip Stiles, who's founded Wetlands Watch, a nonprofit that works to protect communities in Virginia's tidal wetlands. And Skip showed Fred around.

Skip Stiles: We're in a part of Norfolk that's known as Larchmont. It was built out in the 1920s, roughly. And it's an older neighborhood that was built on top of a wetland. And things were fine until about the 1990s. And the flooding kept getting worse and worse and worse as sea level rise began to push water higher and higher. It's a very low-lying area, and so a lot of riverside neighborhoods are like this—old, built out, and flooding more and more and more.

Fred Baldassaro: We were talking about flooding when a storm comes through. Can you explain what's happening and what that means, how that's coming about?

Skip Stiles: We get higher tides here on a full moon and new moon. So some of our worst storms of record here, our worst flooding, have been November nor'easters on a full moon. And so it doesn't take a hurricane here. Hurricanes are sort of one and done. Nor'easters will sit here for three or four days. They'll push the water up, and then they'll dump four or five inches of rain. And that's, for us, the real bad situation, because the water comes up higher, and it blocks the end of the stormwater drains, and then you get four inches of rain, and it's got nowhere to go. So it just floods the city from the interior, from places that aren't even along the shoreline.

Fred Baldassaro: And you said this is happening more, probably since the '90s?

Skip Stiles: Yeah, a lot of people talk about having lived in their houses since the ’50s, no flooding until the ’90s, and then more and more and more storms, 2003, 2005. And it’s noticeable.

Fred Baldassaro: Right in front of the wetland area is a street that has been elevated, you say.

Skip Stiles: It was always a low-lying street. But when sea level began to move the water higher and higher, it flooded more and more frequently. And so the people complained and the city put together about $1.2 million dollars and they elevated this street 18 inches.

Fred Baldassaro: If you look across the street, some houses have elevated porches, some have HVAC systems that have been elevated, some houses are right on the ground. Why is that? What’s happening? Why are all these houses sort of different sizes and heights?

Skip Stiles: In this neighborhood, the work to elevate these houses has almost entirely been done through the FEMA post-hazard mitigation program. Essentially, if your house is insured with flood insurance, and you get a loss, then you get put on the books. If you get repetitive losses, you’re eligible to have your house elevated because FEMA wants to reduce its risk. So that house, and that house over there, these two houses together, were raised after Hurricane Irene. The rest of these houses that are down on the ground are probably waiting to be elevated, because I can’t imagine they haven’t seen some flood loss. It’s a real piecemeal approach. And it’s also extremely inefficient. We did a study a few years ago looking at the number of houses that are waiting to be elevated, and the amount of money that comes in from FEMA. And if you’re at the end of the line right now in Norfolk, if you’re house number 900, you’ll wait 188 years before FEMA funding comes in.

Fred Baldassaro: Here in this area of Norfolk, the federal government has already spent millions of dollars rebuilding this neighborhood. Community development has overtaken the wetlands and has created more problems over time.

Skip Stiles: You know what? Let’s try something here. Could you turn right past this restaurant? Turn right. There’s another low-lying street and it’s got water on it today.

We’re looking at three houses side by side by side. I’m looking at marsh plants in that fellow’s front yard right there. So the water is coming back. The marsh is starting to reclaim what it was 50, 60 years ago.

And these houses, these three houses are sort of a snapshot of what goes on with FEMA. The first house someone bought and knocked down. It was a condemned house. And they built a new house, and you can see it’s maybe five feet up in the air, so it’s perfectly safe.

The house next to it is on grade. Floods all the time. So if you come down here on one of those days where there's a full moon pulling a tide up onto the lawn, sometimes you'll see sandbags in front of that door.

The house next to it is the same house that's been elevated, what is that, 10 feet. That was a FEMA elevation job that was done about five or six years ago. So you at one point had three identical houses sitting here, all of them low-lying, all of them flooding.

Fred Baldassaro: So why live here?

Skip Stiles: Because it's beautiful. You get riverside views. It's a nice place to live. There's a Navy base here, there's good employment here. I mean that's why this area developed. The shipping, the shipbuilding, the tourism at the beach. A lot of our economy is dependent on the shoreline.

The problem is or the challenge is, how do you make them safer? And for how long? And how do you continue to maintain the economy here while you're rebuilding to a higher level? That's the big challenge.

Fred Baldassaro: Many tools exist to help people like Skip identify potential flooding areas and understand why it happens. New mapping technology can help identify where flooding might occur during high tide or a storm.

Skip Stiles: Now those three houses that we're looking at, we went back and pulled a map from I think it was 1850. And it shows that there was a wetland that where those houses were that flood, was in the middle of a big tidal marsh.

It was filled in and people built on it. And as they say, now nature wants that marsh back again. The city of Norfolk did a study in 2007 and there was a lot of flooding they couldn't explain until they went and they got an 1850s map of the city. And they overlaid it on the current street grid. And sure enough, everywhere it was flooding used to be an old tidal creek.

So as we're driving to the Haven Creek boat ramp, we're driving through another neighborhood. Right at the shoreline is a large concrete wall or bulkhead. And it keeps the waves away, but it also completely destroys whatever was once there. The wetlands and the shoreline ecosystem.

So what the city is trying to do is take out these hardened concrete bulkheads and put what they call living shorelines in so that the habitat comes back, and so that this guy fishing right

here has got more fish to catch. This is something that the city of Norfolk has been doing a lot, is basically trying to bring the wetlands back.

Dan LeDuc: That was Skip Stiles talking with Pew's Fred Baldassaro about Norfolk's efforts to hold back the rising waters. It's just one of many places in the U.S. trying to cope with the increased flooding of recent years. And here's a thought for us to end on: Research shows every dollar those communities spend in preparing for floods will save them four dollars in recovery costs.

If you like learning about issues that matter, like flooding and how to protect against it, then we hope you like what you've been hearing here. Write a review on Apple Podcasts or the streaming service where you listen to us. We'd like to know what you think. For The Pew Charitable Trusts, I'm Dan LeDuc, and this is "After the Fact."