HALI JAMA: From Wisconsin Sea Grant, I'm Hali.

BONNIE WILLISON: And I'm Bonnie.

HALI JAMA: And you're listening to The Water We Swim In, stories about the Great Lakes and the people working towards equity.

BONNIE WILLISON: Wisconsin's Sea Grant is based at UW-Madison which occupies the traditional land of the ho-chunk people. The story is on this podcast find the area we now know as Wisconsin where the lands and waters are cared for by the 12 native nations that call Wisconsin home.

HALI JAMA: Hello, I'm Hali. I'm the co-host for The Water We Swim In. I am a current student here at UW-Madison studying marketing and international business with a certificate in environmental studies. I am from Eden Prairie, Minnesota. And an episode I'm excited for you guys to hear about is the accessibility episode. I think it speaks on an issue that is not talked about enough and we get to hear some inspiring stories from people that are currently making efforts towards accessibility.

BONNIE WILLISON: And I'm Bonnie Willison. I am a co-host of The Water We Swim In as well. And I make videos and podcasts here at Wisconsin Sea Grant.

So I'm from South Central Wisconsin and I grew up on an inland lake, but I didn't know much about the Great Lakes at all. But I've really enjoyed learning about them for this job and for this podcast series. For this podcast series, we got the chance to do a story on tribal connections to water around the state. And that's one that I'm really excited for. I'm excited for you all to hear future episode about an exciting project about wild rice in Lake Winnebago.

HALI JAMA: On this podcast, we were going to mainly talk about water and equity. What's the first thing people think of when they think of water and social justice? Flint, Michigan.

MANNY TEODORO: Yeah. The Flint water crisis is endlessly fascinating on a lot of levels. And Flint was not the first, it's not the worst, it's not the biggest drinking water crisis we've had in the United States in the last 20-25 years, but it is the one that captured the public imagination.

HALI JAMA: Professor Manny Teodoro was studying environmental justice in water before Flint was a household name.

MANNY TEODORO: I got to tell you this story because it fits so perfectly with the issue. Back in 2014 before the Flint water crisis had hit the national news, I was working with a colleague who was actually a graduate student at the time on what was the first national analysis of the correlation between race, ethnicity, socioeconomic status, and Safe Drinking Water Act violations. And we found strikingly that Safe Drinking Water Act health violations were significantly more likely in communities that are non-white and of low socioeconomic status. So high poverty non-white communities.

HALI JAMA: Manny says that we can see that low income Black communities and especially low income Hispanic populations tend to experience greater Drinking Water Act violations.

MANNY TEODORO: That's why we thought this was a terribly important finding. And we tried to publish it. Let me tell you, it got desk-rejected at three different journals because editors said that this wasn't an important or interesting question.

Well, then the Flint water crisis happened and it got published because suddenly the world woke up and realized drinking water is an environmental justice issue. Environmental justice isn't just about where you put that incinerator or that other ugly environmentally damaging thing. It's also about who gets safe drinking water. It's about who's sewers are overflowing, and who's sewers are working properly that urban infrastructure can be a question of environmental justice. And so I think Flint really brought that to the forefront and made these large statistical analysis we do much more tangible and relevant to people.

HALI JAMA: Manny Teodoro is a professor at the School of Public Affairs at the University of Wisconsin-Madison.

MANNY TEODORO: So I'm interested in the organizations that provide drinking water and/or sewer and stormwater infrastructure services to people in the United States.

BONNIE WILLISON: And Flint is an example of a drinking water situation that went horribly wrong. Back in 2014, the City of Flint was in a financial crisis and the governor of Michigan appointed an emergency manager. For cost purposes, the emergency manager decided to switch the City's drinking water supply from the Detroit system, the one that Detroit was using to the Flint River. But it turned out that the water from the Flint River was corrosive.

It caused a spike in lead levels that went on for 18 months. The water looked and smelled and tasted really bad and weird. And many people complained but they were ignored. Even now seven years after the crisis, all the lead pipes in Flint have not yet been replaced. Flint sparked the attention of the media and public because.

MANNY TEODORO: The issues in Flint were so clearly not just about water chemistry. They were about the politics of the way that the State of Michigan and the City of Flint interacted with one another financially. It's about the way that the City's government addressed the challenges of drinking water.

It's about the fact that Flint is a majority Black city with 40% poverty. It put all of these social issues at the forefront alongside the water chemistry. And I think it was clear to most people that there's more to the story here than corrosion control techniques at the Flint water recruitment plant.

BONNIE WILLISON: So why Flint? Like why did this failure happen in Flint?

HALI JAMA: Well, Like many Rust Belt towns Flint's population was going down.

MANNY TEODORO: Flint is a shrinking city, a classic case of a Rust Belt community that has a shrinking population and therefore doesn't necessarily have the financial or human capacity to care for the infrastructure that is built over the past several decades. You've got as I indicated a moment ago, a city with 40% poverty. It's majority Black.

It reflects some of the ugly history of racial conflict we've seen in the Great Lakes region over the past century. In that sense, we've got a city that was in a financial crisis and had lost control of its own finances and political decision making. So all of these things combined to make Flint, I think, a case that captures the imagination.

HALI JAMA: It is important to keep in mind that discrimination was not only normal, but systemically ingrained for so long and continues to happen today. Manny breaks it down in terms of the systems that we rely on every day to bring water to and from our houses and workplaces.

MANNY TEODORO: Here's the way to think about it in terms of the lifecycle of a water system. Most water infrastructure will last between 50 and 100 years. Much of the infrastructure that serves the Great Lakes region, for example, is probably built between 75 and 100 years ago.

Well, 75 years ago was before the Fair Housing Act. You could legally discriminate and exclude people from living in a neighborhood because of their race. That was not even illegal as late as the 1940s. And this is a period of time when we built a whole lot of the drinking water and sewer systems that serve the United States.

So there are places in the United States where you can look at the map and see Oh, this is where they stopped building the sanitary sewer system. This is where they stop building the drinking water system. And it's no coincidence that on one side of the line was the white neighborhood, the other side of the line was the Black neighborhood.

So that was a long time ago on one hand. On the other hand, that infrastructure is still in place. Those institutions are still in place. So we are definitely very much living with the legacy of that built community discrimination built environment discrimination.

HALI JAMA: All across the Great Lakes region we see these legacies of redlining. We've been talking about Flint but many points out that in cities like Gary, Toledo, Cleveland, and Detroit we see.

MANNY TEODORO: Central cities that are majority Black or at least plurality Black. And you've got suburban areas that are majority white. Those housing patterns did not happen by accident. There's a well-documented history of racial discrimination in housing that drove those patterns.

Well, in a lot of these areas we have regional water and/or sewer systems that put the majority-minority central city into conflict with its suburban neighbors. The historical legacy of discrimination causes nonwhite populations to live at a higher level of poverty than white populations. So the problems that we see with paying for infrastructure, that we associate with poverty are also intimately tied up in some of the more structural elements of bias in our broader economy in our broader society.

BONNIE WILLISON: Cities like Gary, Toledo, Cleveland, Detroit, and Milwaukee have a few things in common. We see the same patterns of segregation. And also their coastal cities. They're all located directly on the Great Lakes. And we have.

MANNY TEODORO: Different challenges in the Great Lakes region from just about anywhere else on the planet because we have right in our backyards. The greatest source of accessible fresh water on the entire planet. Let's think about that for a second.

BONNIE WILLISON: I like that suggestion. Let's take a pause and think about the Great Lakes. So as I talked about before, I grew up on an inland lake in Southern Wisconsin.

But I feel like in school I didn't really learn about the Great Lakes. I never really made trips there and so I never really considered Wisconsin a coastal state, but it's true. We have so many moles of coastline Lake Michigan, and Lake Superior. You've been to Duluth, right? Do you remember seeing Lake Superior and what was your impression of that.

HALI JAMA: Yeah, I mean, I went to Duluth a couple of years ago when I was, I think, maybe a sophomore freshman in high school. And I do remember seeing like a huge large body of water.

And I didn't really know what it was. I just didn't really have any background on the Great Lakes or no one in my family really did. We just knew that try to like stay away from it because you don't want to drown, I guess. But we never really had like activities growing up that involved water or the Great Lakes at all. So I didn't really explore them until like I was older and I was just like on my own.

BONNIE WILLISON: So since you got this internship focused on the Great Lakes, have you learned anything interesting about the Great Lakes?

HALI JAMA: Yeah, I learned a lot. I mean, in each episode coming up we'll cover so many different topics, but there's so much impact our Lakes and our waters have on every single person like even if you don't really think about it. Even me when I was growing up, I didn't have any type of experience with water, the lake or anything yet it was still affecting me without me knowing it. And you'll see that throughout our next episodes like I said. But yeah, I would say I've learned a crazy amount. I think I'm pretty much an expert now. I think.

BONNIE WILLISON: So as you can tell, here at Wisconsin Sea Grant we think a lot about the Great Lakes. Our whole organization is dedicated to the sustainable use of Great Lakes resources. Here's our assistant director for communications, Moira Harrington.

MOIRA HARRINGTON: The Great Lakes truly are a treasure. I mean, they're a global treasure. I mean they just support millions of people around the shorelines. And they have for a Millennium.

So we're talking about in Wisconsin, 1,000 miles of shoreline. We're talking about 105 cities, villages, and towns. And that's today. But if you think back through Millennium, the Lakes have really sustained all sorts of people thousands of years ago, supported their livelihood. The Lakes were like the highways to connect people. I mean, we continue that today.

MANNY TEODORO: More than anywhere else in the world, we've got access to fresh water. Unlike other parts of the United States or places the desert Southwest and the Southern United States where they're running out of water. There are places where there's just not enough water, their communities may be dying because they don't have access to fresh water. That ain't our problem. We've got plenty of it. That's the good news. That's the hopeful part.

We are better situated than just about anywhere else in the world to deal with the challenges of climate change. We're going to live-- we're in a region that's going to get more temperate, our growing season is going to get better. We're not going to out of water. We have all of these structural advantages. So that's the happy part. The depressing part is, all of our problems are our own making.

BONNIE WILLISON: And we as a society have created a lot of environmental problems.

JIM HURLEY: If you think about back in the early stages of the environmental movement. It was the issue of contamination of the Great Lakes, which was really high on people's radar because they could see the direct effects, the burning rivers, the influence of smokestacks in cities around the Great Lakes.

BONNIE WILLISON: I guess that is one thing that I did learn in school about the Great Lakes is that there are rivers caught on fire, and that was what sparked the environmental movement. So that quote was from Jim Hurley, the director of Wisconsin Sea Grant. And while he thinks back to these challenges that we've dealt with, he's also seen improvement.

JIM HURLEY: To see that change now, to see the Fox River, be fairly well clean into PCB pollution, to take a cruise on the Cuyahoga River in downtown Cleveland and see that that's been remediated and that people are kayaking right through the central part of downtown Cleveland and it's the same for here in Milwaukee.

BONNIE WILLISON: So for some research, I was looking at old photos of Milwaukee back when there was a lot of industrialization and factories and industry putting chemicals into the rivers. And honestly it is powerful to think of how far we've come since then. Now, when you go to Milwaukee, there's so much to do along the rivers, you can even swim in the Milwaukee River.

We have done a lot of remediation which is pretty inspiring. But we still have a long way to go. We still have water accessibility and water affordability issues like Flint.

MANNY TEODORO: The challenges we have with providing adequate water and sewer services to everyone in this region are fundamentally political and economic challenges. We've got the water. We could in theory solve our water accessibility and affordability problems, but it requires a political will and political coordination that is sometimes hard to do. And race makes that so much harder.

BONNIE WILLISON: After the break, overcoming a legacy of distrust.

[MUSIC PLAYING]

So back to Flint, Michigan. They went through 18 months of dangerous drinking water that led to lead poisoning and outbreaks of disease. The residents were super concerned, but they were ignored by state officials. And community uprisings led to national attention.

HALI JAMA: So what happened then? Were they able to switch their water source back and get clean water again?

BONNIE WILLISON: Yeah. So many remembers watching the developments closely. One option that the city had was to join this regional Water Cooperative. And financially, this made a lot of sense. On the one hand, this was a really good deal for Flint.

MANNY TEODORO: But it was tremendously controversial. The city did ultimately enter into the agreement, but it was not without a lot of conflict within the city because the folks in Flint quite understandably didn't trust their neighbors.

And so why should I cooperate with you, you who have been discriminating against me for decades? Why should I trust you? That plays out across the region in ways that are destructive. That legacy of conflict, that legacy of hate, it hampers everything that we want to do to try to provide water for this region and that's sad.

BONNIE WILLISON: So Flint did switch back to the Detroit water, but the damage had been done. The pipes still leached lead and they were still unsafe.

HALI JAMA: People living in Flint were forced to rely on bottled water and many people there still do. The citizens of Flint just do not trust their water or their governments anymore. And rightfully so because they have been dealing with contaminated water for so long. They would rather be safe than sorry. But it's not just Flint residents who were forced to change the way they think about their water.

MANNY TEODORO: The data pretty clearly show that the Flint water crisis has changed the way that people everywhere in the United States think about their water. And we see bottled water consumption increase across the country, especially among Black and Hispanic folks and especially among poor folks even in places where the drinking water system is fine.

And I want to emphasize that tap water quality in most of the United States is perfectly fine. It's very safe. It's very healthy.

But there are places where it isn't. That's bad because bottled water is expensive. On a unit cost basis, it's somewhere between 10 and 100 times more expensive than what comes out of your tap.

HALI JAMA: So what can we do about this many gave us some of the structural reforms that can be put in place to ensure better water systems for everyone and hopefully ensure that something like Flint doesn't happen again.

MANNY TEODORO: Number one far and away, the most important thing, also one of the most difficult things is consolidation. We got way too many water systems. In Wisconsin alone, we've got over 500 drinking water utilities. That's too many. To give you a sense of scale, the entire UK, England, Scotland, and Wales has 25 water companies. We've got 500 in Wisconsin. That's way, way too many.

HALI JAMA: And that's a huge problem because of our segregated urban, suburban, and rural populations. Like we mentioned earlier, there are racial divisions and socioeconomic divisions in the urban areas in the Great Lakes region. Because of this, why communities are often in the suburbs and nonwhite communities are often forced to live in the cities?

MANNY TEODORO: Consolidation takes care of that problem by balancing it. Now, the trouble with consolidation makes it difficult is that legacy of distrust. So we have to find ways to work through that distrust and make sure that consolidation isn't a white takeover of a Black system but rather a joint cooperative exercise in regional governance. There are ways to make it work, but it's difficult.

BONNIE WILLISON: The second solution is regulation. Manny says Wisconsin is doing a great job with this already.

MANNY TEODORO: Wisconsin continues to be a leader in utility regulation. It's one of very few places in the United States where every water utility is subject to financial oversight along with environmental quality oversight. I'd like to see that model exported across the country. People laugh at me when I tell them this, but that Wisconsin Public Service Commission is a big reason why I moved to Wisconsin.

BONNIE WILLISON: Next, Manny believes that we need an investment and people and technology.

MANNY TEODORO: And then the last structural reform. We need to build environmental justice considerations into everything we do in the water sector. And by that I mean, we need to think about environmental justice when we decide where to build, which parts of our systems we're going to maintain and upgrade. We need to think about that. When and where we're going to inspect and enforce environmental regulations.

There is a disturbing pattern of behavior in the regulatory data that demonstrate that communities of color are much less likely to get rigorous enforcement on environmental laws whether that's the Clean Water Act or the Clean Air Act, the Safe Drinking Water Act. When violations occur, minority communities are less likely to get rigorous enforcement.

The most extreme case, of course, is tribal communities. After that is smaller majority Hispanic communities, and following that is Black communities. One of the places though that where there's little hope is that in urban areas where Black communities have a history of political mobilization we actually do see environmental regulators respond and take out more aggressive action to address environmental harms.

HALI JAMA: So many said, we've got racialized patterns of environmental violations.

MANNY TEODORO: The good news is that when communities mobilize they're vigilant and they demand environmental quality. The government does respond. And so I think there's a story there about community organizing and very know credit to the street level environmental champions in the minority communities that make that happen.

HALI JAMA: After years of legal and unjust discrimination, communities in this country are separated by what many calls a legacy of hate. So what can we do about that?

MANNY TEODORO: It's hard. It's really, really hard.

[DOG GROWLING]

My dog agrees with me. Yeah. Yeah, hate is a terrible thing. Lydia, it's-- You see how angry it makes her

[DOG GROWLING]

Look, these things are hard. The truth is I don't have the answer and I'm not sure anybody does. The best I can do is say, putting people into conversation with one another. Recognizing not dismissing, but recognizing the legacies of hate that we're dealing with and doing our best to be open and honest with one another. Recognize that people's distrust often is legitimate, it comes from an honest place, it's not personal. But it is collective and it's something we have to overcome together.

BONNIE WILLISON: And that's what we want to do with this podcast. Put people into conversation with each other. This season will meet the Wisconsinites and Great ' advocates working towards equity in a society where environmental injustice is the water we swim in.

SUBJECT 1: Water is the lifeblood of Mother Earth then I just want to help take care of things.

SUBJECT 2: It felt like I could run again.

SUBJECT 3: If we let those issues be invisible, they'll never get fixed.

SUBJECT 4: A huge wave came by and all of a sudden they like sucked him in.

SUBJECT 5: You can see the passion that they have for that they're fishing like they love it.

SUBJECT 6: We heard about it in the newspaper. And it was this little blurb that said, this pool is going to close.

SUBJECT 7: Giving access is justice.

SUBJECT 8: We're looking at this milky broth. The fish and I are currently making eye contact.

BONNIE WILLISON: Subscribe, to The Water We Swim In wherever you get your podcasts.