

Speaker 1:

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Zach Klein:

Hi there, welcome to episode eight of the Law on the Half Shell podcasts second season. Law on the Half Shell is brought to you by the National Sea Grant Law Center, which is located at the University of Mississippi School of Law. I'm your host this season, Zach Klein. I'm one of the Law Center's Ocean and Coastal Law fellows. And as mentioned previously throughout this season, the law center works on a variety of natural resource issues that affect our Sea Grant partners across the country. So, it's not exactly a coincidence that the theme of this season of the podcast is COVID and coastal resilience. But just as is the case with the law center's non-COVID related work what has surprise me most during my time at the law center. And I think it's more likely to surprise our audience members in general, is how much these seemingly niche issues can come to incorporate or touch upon seemingly unrelated, uncoastal aspects of our daily lives.

Zach Klein:

This episode is very much in that same spirit. Former National Sea Grant Law Center VISTA Corp Fellow, Taylor Harris is returning to talk with the Law Center's own, Olivia Deans, about the impact that COVID had on a law center project that Taylor was involved with concerning water quality in the Mississippi Delta. Of course, most people aren't going to think about Mississippi Delta water quality when they think about COVID and coastal resilience. But this is just one of many hidden facets of the pandemics long reaching ripples in both coastal and non-coastal communities alike. So, without further ado, let's find out what Olivia and Taylor have to teach us in today's episode.

Olivia Deans:

Could you tell us, give us a broad overview about your position and some of the things you work on?

Taylor Harris:

My position is pretty broad. So, being in AmeriCorps VISTA is a year of service and you don't know when you apply necessarily who you're going to work with, but you do know that it's going to be service work, you're going to work with a nonprofit and that it is a part of the job description to wear many hats. Currently, for the UM lead project, I do outreach to facilities, to community partners so that ... because people can't benefit from a service that they don't know about. So, I do outreach, whether that be to childcare facilities that we're testing for the WIIN Grant Project or for Mississippi, we have a program within Mississippi Department of Health.

Taylor Harris:

I do if we need any paperwork, important information that needs to be filed away, synthesized in both online, as well as in someone's head, and I also am doing a lot of our marketing. So, that is how the lead and water series came about if their social media for the UM Lead Project, any social media posts, sometimes that involves infographics. When I say marketing, I mean marketing, literally anything that would draw attention to the project I do to the best of my abilities so more people can know about us.

Olivia Deans:

Wow, that's great. I had no idea that when you originally apply that you don't really know what you're going to be working on. So, that's exciting. I'm glad it worked out like that.

Taylor Harris:

Yeah.

Olivia Deans:

Have you always been interested in drinking water or is this a new interest?

Taylor Harris:

I will say that I've always been service oriented. So, this is also something that wasn't really known before, but my first job was a lifeguard at the Y and I taught swim lessons. After that, I worked at childcare facilities as a preschool teacher and then also in school, because I was in school during that whole time, I did the Williams-Mystic Study Away Semester. It's a program through Williams College that happens in Mystic, Connecticut at the Museum of the Sea. And it's a whole semester centered around environmental justice, environmental protections, just understanding in a multidisciplinary way, which also relates to the UM Lead Project. So, the Williams Mystic Program is centered around the environment, learning about the environment, climate change especially so drinking water specifically no, but a lot of what I did during Williams Mystic is pretty relevant now, especially in terms of environmental policy, being able to work with people, understanding how contaminants can affect the overall picture of things even though they're a small part.

Speaker 2:

In the conversation you are about to hear, Taylor and Olivia discuss two different aspects of lead in drinking water policy. Blood testing and services for children to detect and respond to cases of lead poisoning and water sampling by public utilities to detect and respond to high levels of lead in water. The number 15 arises in both these contexts, and while at may sound as if the measures are interchangeable, they are not. The Lead and Copper Rule requires public water systems to monitor and test household tap water for lead. If the lead levels exceed 15 parts per billion in more than 10% of tested homes, this is referred to as the action level. The utility has to test more frequently and take action to reduce corrosion. The Centers for Disease Control and Prevention uses a blood lead reference value to identify children with higher levels of lead in their blood compared to most children.

Speaker 2:

The CDC recommends children with a blood lead level at or above the reference value of 3.5 micrograms per deciliter be referred for follow up. The Mississippi State Department of Health follows these CDC guidelines, but due to funding and other constraints provides a sliding scale of surfaces to families depending on a child's blood lead level. Only children with an elevated blood lead level at or above 15 micrograms per deciliter qualify for an environmental home inspection. With that, let's dive into the conversation, but throughout the episode keep in mind that we're talking about two different aspects of lead in drinking water policy.

Olivia Deans:

So, I know a little bit about the lead project, but how would you describe it as an overview? What are some of the main parts of it?

Taylor Harris:

We want to bring ... we want as many Mississippi residents have access to clean drinking water as possible. And so that functions in a few different ways. The team generally has multiple projects happening at one time. Let's see, the Environmental Protection Agency releases the Clean Water Drinking Act, which federally regulates contaminants in water. But up until recently like the last few years, testing in schools and or places where children are present wasn't required by the Safe Drinking Water Act. So, one of our projects focuses through ... it's called the WIIN Grant, Water Infrastructure Improvements for the Nation Act, which allocates funds to encourage and essentially pay for increased testing in schools and childcare facilities.

Taylor Harris:

So, the WIIN Grant is our effort to accomplish that work to testing childcare facilities and schools. Right now, it's primarily in childcare facilities because they're usually independently owned. Then there's also the Mississippi Department of Health Program, the EPA as well as the CDC. The Environmental Protection Agency identifies an elevated blood lead level as about 15 micrograms per liter. The Center for Disease Control suggests that an elevated blood lead level in a child is at five micrograms per liter. So, when you're talking government regulations that will be the EPA but 15 micrograms per liter is actually really ... it's pretty high.

Taylor Harris:

There are graphs and information on the fact that at about one microgram per deciliter in your blood, you start having significant impacts in terms of IQ points, behavior, lead is a really indirect cause of these things, so it's hard to say beforehand, but the Department of Health Program is a partnership with the UM Lead Project to increase testing. So, if you had a child and they tested for 15 micrograms of lead per deciliter in their blood, you would qualify for an environmental home assessment where the Department of Health goes in, they ask you, well, where does the child play? Where do play? What's the drinking water? Where are their toys? Where are they usually at?

Taylor Harris:

And the Department of Health goes in testing environment and tries to find a lead source. But like I mentioned earlier, lead has significant effects at as little as one microgram per deciliter and the CDC recommends that five micrograms per deciliter is an elevated blood lead level for a child. It's a level of concern. So, our partnership with the Department of Health is to increase their ability to test. If a child tests between five and 14.9, which is just under the EPA required level for them to go inside, then they send the information to the UM Lead Project and we send them mailing kits to test their water.

Olivia Deans:

Interesting.

Taylor Harris:

So, when the department gets a child who falls under the regulated, falls under 15 but above five, they send their information to us, just so families are aware of they can... By process of elimination they

know maybe it's a little more elevated because of our water or maybe it's not elevated at all because of our water.

Olivia Deans:

Interesting. That seems like a pretty large gap from possible effects after one, up to 14 or 15.

Taylor Harris:

Well, the EPA is pretty clear that it's not a health based standard. It's an enforceable standard because, and we'll probably talk about this a little later, but it's always a thing of yes, there's a problem, but who's going to pay for the problem to be fixed and how will we fix it? Kinds of things like that. So, I think the 15 micrograms per deciliter like I said, they're pretty clear that it's not a health based standard. It's just one like to provide parameters in which like something definitely needs to be done and it needs to be done sooner rather than later.

Olivia Deans:

How many people do you think you've had outreach for?

Taylor Harris:

With the WIIN Grant, a lot. So, a lot of our cold calling the happens through the WIIN Grant Project and I couldn't say-

Olivia Deans:

A lot.

Taylor Harris:

A lot. Yeah. There was a point in time where I was maybe calling 20 facilities a day and our list and I was splitting it with our team member from the Center for Population Studies, Vanessa Parks, so neither one of us was able to get through the entire list because it's pretty substantial. I think it's composed of pretty much every childcare facility.

Olivia Deans:

Wow.

Taylor Harris:

In seven core counties and a couple of additional counties.

Olivia Deans:

Wow.

Taylor Harris:

A lot of people.

Olivia Deans:

That's incredible. I'm glad there's at least some effort there, that's great. So, I know you started in January, right?

Taylor Harris:

Mm-hmm (affirmative).

Olivia Deans:

Okay. During COVID how do you think the pandemic has influenced this project? Or have you seen a lot of problems with trying to contact people at all or anything like that?

Taylor Harris:

Coronavirus has definitely made us creative. It's my understanding ... this was the idea before I was brought on, but my understanding is that the original idea for the project was for us to go to facilities maybe do a cold call, but go to the facilities, present the information and be able to test the water. Especially at the time, because vaccines weren't released yet, because we wanted to limit in person contact it meant that we started giving orientation Zooms which would include the general information on how lead can affect children, the steps for the project or basically how to get your water tested. We had allowed people the option to choose between remote sampling as well as socially distanced, in person sampling. So, it certainly has made it interesting because when you're cold calling they don't know you, and I feel like we live in the age of really convincing robo calls.

Taylor Harris:

People are already like no, they don't want to talk to strangers. So, it meant being able to be really personable over the phone and to be able to make connections with people even if we aren't necessarily connected. And on the basis of I really just want to help. It is important information like we were talking about earlier 15 micrograms per deciliter when certain organizations especially organizations dealing with children like the American Academy for Pediatrics advocates for one part per billion in the things like school fountains. And then the CDC says things like five, but the public water system wouldn't have to notify anyone if when they tested the water, it didn't test above 15 grams per liter which is different blood lead level but the same number, if the water tested as having more than 15 micrograms in it, then the public water system would have to notify the people who they're serving but outside of that, they wouldn't.

Taylor Harris:

So, it's possible that what health professionals would consider a little higher than what you would want to give children is present in the water and they're at this like, especially for preschool facilities they're at a really critical time in their development and then after being exposed to the lead and you have the negative side effects, there's not really any way to undo them if you end up with ADHD because of that exposure or you end up losing IQ points literally there's not really a way to get those back.

Taylor Harris:

It was important to me personally to present the childcare facilities with the information and to also provide as many solutions as we possibly could because we also didn't want to go in and tell people you have this problem. That it's really stressful and nobody would want to do that part. So, the first step was having the opportunity to provide them the information on the lead in drinking water or lead in

children. And then also like I said, to be able to go in and test and depending on what we find, provide solutions to them to make sure that everybody's safe in the future.

Olivia Deans:

Wow. It sounds like it could be a difficult conversation to have but very important. Has the pandemic impacted any of your other projects? I know there was a Jackson Mississippi Project. I don't really know a lot about that one, could you talk to me about that and any challenges you've had?

Taylor Harris:

So, it actually started while I was looking at the UM Lead Project website and just looking at it to find ways that we could better communicate the project to someone who ended up on our page but maybe didn't have a lot of information about us. And I came across the story map that the team had done on the Jackson water crisis. And I was looking through it and I told Stephanie, I was like, well, this seems like a really cool idea and a really big problem. And that essentially snowballed into a lot of our marketing efforts do or exposure efforts do.

Taylor Harris:

It snowballed into just really making the information available to people in a way that they could understand, because I did my own personal research on the crisis and I think that at this point it's been longstanding, the issues that the Jackson public water system has and there are so many moving parts that even if you were to Google Jackson water crisis, it's really hard to know what's going on, why it's going on that way. I spent a lot of time actually trying to just figure out like, well, what happened? Right when actually the week after I moved to Mississippi was the big winter storm and we were all snowed in.

Olivia Deans:

Yeah.

Taylor Harris:

And during that time, the people in Jackson didn't have clean water. They actually didn't have any water. There was very little water pressure. People who had been focused on providing relief to people affected by coronavirus were now helping distribute water and making sure that residents had water period, and that was the case for about a month.

Olivia Deans:

Wow, that long.

Taylor Harris:

Yeah. Their water system came back up early March. The storm was probably second week in February, very near to the second week in March is when they ended up getting water again.

Olivia Deans:

Wow. That's pretty intense. I can't imagine having a pandemic and then not access to water on top of that, how challenging.

Taylor Harris:

I felt the same way. Actually, I felt the exact same way because people are people and you want them to have what they need. Off the top of my head, when I think about not having water, I would think like, oh, it must be so difficult to not be able to take a shower or wash your hands, but reading on the Jackson water crisis made me realize just how essential water is to everyday life. There were stories about people who had to have gallons of water for dialysis or families who had to decide can I wash this fruit off for my child or should we save that to brush our teeth? There are stories of people collecting rain water in order to flush the toilet. It actually was heartbreaking, there's literally no other way to say it because these are people, it is frustrating and a little saddening that where you live can be the reason why you're restricted from something that is literally essential to life.

Taylor Harris:

Especially when we're going to assume that in general, these people are hard working, tax paying and that is the security of having a central governing body is that when large scale problems like this happens, somebody will be there to take care of it. So, it was heartbreaking to hear that they were failed in that way. The city of Jackson is more than a hundred years old and up until this point, there hasn't really been a plan as far as the government is concerned, it hasn't really been a plan for updating water systems. It's just assumed that the revenue that the water system takes in things like taxes will be able to cover those things. But Jackson is also more than 100 square miles. So, you have this huge urban city where there are approximately 60,000 households, huge city, lots of people, but it's old.

Taylor Harris:

And there definitely need to be updates made from my research. I've seen where the mayor of Jackson as early as 1997, I want to say allocated, I believe \$200 million to updating water. It gets tricky in that spending unfortunately, in trying to make it better is where a lot of their problems in terms of revenue start. So, they spend \$90 million on a contract with a company called Siemens which is supposed to upgrade water treatment plants, sewer lines, but mainly it's supposed to install these new water meters that more accurately measure the water that households are using, which would mean that they would have increased revenue and more efficiency, they don't need as many people, et cetera, et cetera, et cetera. So, it's supposed to save them money and also make getting water more efficient for the city because with these new water meters also comes automatic billing system.

Taylor Harris:

So, instead of having to go to the public water system building and pay your bill, you could pay it online, ease and convenience which I love. I love being able to pay my bills online. I'm always like but why? So, I definitely understand the concept, but unfortunately the water meters had a couple of things wrong with them. The first being that they measure water in cubic gallons, but the public water system charges for water by cubic feet. There are about six to seven gallons in a cubic foot of water, so that means that people were getting outrageous bills six to seven times what they would actually owe.

Olivia Deans:

Wow. That's alarming.

Taylor Harris:

Yes. And the second thing is that some people stopped getting bills period, because the meters were sourced from Europe which has a much colder, drier climate than Mississippi, and so the batteries malfunction and a lot of meters just weren't counting period. So, people weren't getting water bills again, the city is trying to make improvements on really old infrastructure, but in their effort to make improvements, essentially the revenue towards the public water system was extremely limited. Because again, there are lots of people not getting bills at all. There are people not paying the bills because why would I pay if I didn't use all of that? If you get charged the wrong number for your order or your food, then they either correct it or if you're lucky well, they corrected but that wasn't possible and again, with about 60,000 households in the Jackson area right now, it would take years to fix the math manually.

Taylor Harris:

So, they really did end up in between a rock and a hard place. And so the city ends up depleting the bonds of the public water system to try and keep water on because it's essential. They're trying to keep the water on, so they end up depleting their bonds. They take out emergency loans from the city to do things like water repair and it's essentially, using a credit card when you don't have a job. Because like I said, they're not really taking in the revenue that they're supposed to or that they normally would. At the start of the project it's like, oh, well, you're going to get all of this extra money, you'll be able to save money and et cetera, et cetera, very well meaning but it did not work out like that.

Taylor Harris:

When Jackson sues Siemens for selling them an unusable product, they end up in a settlement for the 90 million that the meters cost. And while they won in that sense, they lost still. 30 million of that money went to attorneys that represented the city in the settlement. Approximately 30 million went to paying back emergency loans that the city gave them, essentially 30 million to play catch up and all that had gone wrong. In the meantime which left about 25 million to make repairs on the water system. In the meantime, the city of Jackson is still under a consent decree for their wastewater because the wastewater was not being treated properly as well as an administrative order from the Environmental Protective Agency. The point is they still have a problem very similar to what I imagine losing one's income is like. You still have responsibilities, you still have bills that need to be paid, et cetera, et cetera.

Taylor Harris:

So, in trying to upgrade the city and to be able to provide the community members with reliable water, they really ended up in the catch 22 and so the consent decree and the administrative order are still happening while they're in court with Siemens, while they're trying to figure this out because I think it took years for the meters to be installed for it to realize like, okay, this is not working, this is actually putting us in a worse place than before, we're going to go to court instead of going to court, we settle. So, it's been a really long drawn out issue, so there's been talk recently of the EPA working with Jackson in order to be compliant. I believe they were given 47 million at the beginning of the year to make more emergency repairs on the water system. But it is just this giant problem that instead of us making small steps towards solving it essentially made it worse.

Olivia Deans:

Has it been harder to involve a community during COVID-19? Or do you think you've been able to reach more people since we've transitioned a lot of our lives to virtual settings?

Taylor Harris:

I would say that I have pretty frequent contact with the community. It has made it simpler in some ways, but just like you have issues communicating face to face sometimes that can happen online. It might be a little easier to go back and correct those things now because there's a record of everything, a lot of your communication is going to happen through emails or direct phone calls as opposed to let's meet at this time and then we don't talk until then. I think it has opened communication in some ways, but I will say it definitely has its challenges still.

Zach Klein:

That's a wrap on episode eight. Thank you to my fellow Ocean and Coastal Law Fellow, Olivia Deans, for lighting the legal groundwork for this episode. And a huge thank you to the law center former AmeriCorps Vista Fellow, Taylor Harris for coming back and sharing her firsthand experience with how COVID has intersected with water quality issues in the U.S. Tough as these obstacles may have been at times, public health agencies and others providing water quality related services managed to overcome that and continue doing their vital work as best as the circumstances allow. Plus there are other glimmers of hope on the horizon. For example, the Infrastructure Bill that Congress recently passed includes \$15 billion to replace lead service lines and \$200 million for schools to prevent lead contamination of their water. Yet another example of a Law Center chapter in the story of the COVID pandemic and indeed the Nation.