So You Can Heal from Poison: Jackie Young, the San Jacinto Waste Pits, and Other Toxic Sites

(Houston and Nature Episode 6)

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Nivien Saleh

Assume you found out you had been poisoned. Would you be able take that bad experience and turn it into something truly good?

Hi, I'm your host, Nivien Saleh.

Perhaps you can remember the first episode of Houston and Nature. In it, environmentalist Jaime González gave us an overview of the Houston environmental movement. He said it consists of two parts: Environmentalism 1.0, which focuses on preserving wilderness. Examples are the World-Wide Fund for Nature or, closer to home, the Native Plant Society of Texas. Then there is what Jaime calls Environmentalism 2.0. That's the fight for the environmental rights of people in their communities, for example: The right to clean drinking water or the right to healthy air.

Today's guest is at the center of Environmentalism 2.0. Her name is Jackie Young Medcalf.

Jackie came of age by the San Jacinto Waste Pits. If you've lived in Houston for a while, you've probably heard of the Pits. They are on the West bank of the San Jacinto River, immediately north of I-10, and they are filled with dioxin. Because dioxin is so poisonous, the Pits have been adopted into the federal government's Superfund program, and the Environmental Protection Agency supervises their clean-up.

As a teenager, Jackie Young Medcalf was exposed to large doses of poison. Now she makes sure that other people far better than she once did: Through her organization THEA, the Texas Health and Environment Alliance, she helps decontaminate toxic sites at the Pits, in Cypress, which is a community in Northwest Harris County, and in Greater Fifth Ward.

Welcome to the podcast, Jackie!

Jackie Young Medcalf

Thank you.

Nivien Saleh

When you were little, did you have this big dream of one day heading an organization that fights pollution?

Jackie Young Medcalf

I never in my wildest dreams thought that I would grow up to be in the nonprofit sector. It's never something that I planned or thought of for my life. It was merely out of necessity.

Nivien Saleh

Tell me more about that. How did you get into it?

Beginnings: Discovering that you've been poisoned

Jackie Young Medcalf

I've always had a passion for the planet and for the environment, and that's something that I really had an awakening of when I was in college and realized my true love for science. I was studying environmental science and geology at the University of Houston, Clear Lake. I had heard back in 2011 that the City of Houston has radioactive tap water, which certain areas very much do. And so I said, "Oh, hey, well, we live out here at my parents' dream home. We have this pristine groundwater well. As part of my hydro-geology case study, I'm going to study our water and compare it to the City of Houston's tap water." It ended up being our water that I found most of the problems with. And I realized through my studies at the university that the water flowing into my family's home was actually the common denominator between all of our health issues.]

Nivien Saleh

What kind of class was that?

Jackie Young Medcalf

That that was in a hydrology course. In most of your courses related to your major, when you're a science major, you have to do case studies. And so I had a semester-long study that I had to create, essentially. And that's what I decided to do for that course-long study.

Nivien Saleh

And were you a freshman, junior, senior? What were you?

Jackie Young Medcalf

I was a junior.

Nivien Saleh

A little bit more than halfway through your college experience, and you did the study. You went to your home and took a sample from the water. And then what did you do with that water?

Jackie Young Medcalf

Yes, I sampled our groundwater well, as well as our neighbor's every day for two weeks. I tested about 20 basic parameters of the water. There were some indicators that were slightly off that might indicate maybe a presence of bacteria. I actually captured a sample of the water that you could literally see flakes of metal in the water with the human eye. Did not even need to be put through instrumentation in the lab. You could literally see it with your eyes. I'll never forget taking that sample into my class, and my my fellow classmates and I were wondering, oh, is it, you know, this or that? We were all coming up with theories of what it could be. We ended up finding out that it was heavy metals.

Nivien Saleh

Wow, and what did your teacher then say?

Jackie Young Medcalf

“Stop drinking from your well and go get tested for heavy metals.” At that time, my health was severely failing me, and my professors were extremely aware of what was going on with my health because not only was I in and out of the hospital, but I was primarily in night school, and most seizures occur at night, and I was having an average of seven seizures a week. I was noticeably, visibly very sick. I lost use of both of my hands, so I was registered with disabilities. I had to take tests through special programs. I couldn't sit there in class like my fellow classmates and partake in tests like everyone else could.

Nivien Saleh

Seven seizures a week?

Jackie Young Medcalf

Yeah, it was terrible, it's it's something I wouldn't wish on anybody: Not being able to control your body, not knowing what's going on with your body. And being so misunderstood by doctors is a really, really hopeless journey. When my professor said you need to go get tested for heavy metals, that is what really catapulted everything.

I went and I was tested for 21 heavy metals and I had 19 of those in me.

Nivien Saleh

Wow. That is pretty, pretty mind boggling. So you went to the doctor and then the doctors told you, your body is filled with heavy metals. What does that mean for your body?

Jackie Young Medcalf

I tested several different mediums from my body. We tested my hair, nails and my blood and my urine for heavy metals. I had things in me that I learned about in my college courses. You know, I watched movies in my environmental management courses of children having seizures from lead and how arsenic affects you. I never thought that was what was going on with me. So when we discovered that it was, in fact, heavy metal poisoning at a minimum impacting my health, I was then able to address the root cause of what was making me have seizures, what was causing the skin lesions all over my body, what was impacting my fine motor skills. I mean, I would just be walking and I would just fall over because of how it was impacting my central nervous system. And from there, we were able to start the detoxing process. And that was really difficult. But I had alread y been through so much. It was like, well, we have to to climb this mountain and, you know, we'll get through it. And I did. And I'm that much better today for it.

Nivien Saleh

You are not the only person in your family that had these problems. The rest of your family had issues as well, correct?

Jackie Young Medcalf

Absolutely. Every member of my household had health issues as well as our animals. And once I started realizing that it was the environment making us sick, I started applying what I was learning in college. One of those principles was that if it is in fact your environment that's making you sick, it's not just going to be your household, right. Your neighbors are also likely going to be experiencing health issues. We all metabolize things differently. Genetics come into play. But at a minimum, some of your neighbors would also be dealing with health issues if it is the environment. So we started going door to door and talking with our neighbors, which is something you don't typically do. You know, you don't typically see your neighbor and say, hey, I just got home from chemo treatment today ... It's just not something we really typically do. But we need to be doing more of that because we found what we were experiencing in our household, many of our neighbors were experiencing. For example, I have met people from my community where the father, just like my father, has bone marrow cancer. Then the younger child has seizures. Talking with our neighbors, we found we definitely were not the only ones that were having health issues. Our animals were not the only ones with the types of tumors that they were having and cancers. It really all began to snowball from there.

Jackie becomes an activist for remediating the San Jacinto Waste Pits

Nivien Saleh

How did you get from there to being an activist?

Jackie Young Medcalf

The more I learned about our environment and the more I learned about the government knowing that these contaminants were in our environment, the deeper my passion grew to become an environmental activist because something had to be done. And I knew that it was going to take someone putting everything they had into an effort to create change.

Nivien Saleh

So you decided then and there that you would be the person to put everything you had into that fight?

Jackie Young Medcalf

Absolutely. I started attending EPA meetings for a Superfund site that was in my community and had not seen any remediation. That was the San Jacinto River waste pits.

Nivien Saleh

EPA is the Environmental Protection Agency.

Jackie Young Medcalf

Yes. Every year that the EPA would host a community meeting, I was incredibly frustrated that they were talking right over the heads of most of my fellow community members and I. They were almost always giving the same presentation they'd given the year before. There was very little new information. And the meetings were so hostile because they were only visiting our community maybe once a year. And you're visiting a community where people are sick, people are losing loved ones, and they're angry. So it was a very hostile environment. And I knew that there was something within me that had the capability to turn that process around.

Nivien Saleh

To make the EPA employees less hostile and but probably also to make your community more welcoming of the folks from EPA, right. Because it seems like the EPA people responded to what they saw as hostility.

Jackie Young Medcalf

Absolutely. Part of the reason why the meetings were so hostile is because the community was not being kept in the loop. The community did not have an outlet to express themselves, and they also didn't know who the target was. The only people coming to our town were the EPA officials. And so the residents would take their anger, their hostility, their frustration out on the agency, when in fact, that's not the target. Right. The only chance we have at getting this site cleaned up is through the federal process. And the only entity who has the authority to see that it's cleaned up and cleaned up right is the EPA. They're not the ones that brought the pollution there. They're not the ones that created this mess. They're the ones that have come in and are trying to help bring different players to the table and get this resolved.

The sooner folks realized that, the more constructive we could be with the agency. So we started hosting monthly community meetings. And through that, we were keeping the residents updated and engaged. And then, when the EPA would come to town, we could actually have a productive meeting with them.

Nivien Saleh

You just went from there was something wrong with your water and then you were at community meetings at the San Jacinto River site with the Environmental Protection Agency. By that time, you had made the connection that whatever was happening in your groundwater had to do with that site. Correct?

Jackie Young Medcalf

I believed that what was going on with with our health, with the community's health, was deeply connected to that site.

THEA, the Texas Health and Environment Alliance, is founded

Nivien Saleh

How did you get from there to THEA? THEA was founded in what, 2015?

Jackie Young Medcalf

Yes, yes. In 2011, at the height of my health struggles and the height of my curiosity and trying to figure out what on Earth is in our community that is making us so sick, my mom went to the grocery store in town and saw a group that was set up there with a tent, and they had all of these signs with fish crossed out with red X's saying "Do not eat." So she stopped by there and said, “What's going on? I think, you all know something we need to know.” It was a group called the San Jacinto River Coalition. When I was in college, I began volunteering with with that entity. And when I graduated college in 2013, I did not do what most college kids do in their senior year and following graduation. I wasn't looking for a job because I knew that I had aggressive early stages of cervical cancer, and that following graduation I was going to have to have surgery, and it was going to take me a little while to recover. So during that time, while I was recovering, I could not forget about all of the sick people that I'd met over the years of volunteering in my community.

I had been offered a job by that nonprofit, but it was not even enough to pay the mortgage at my parents' house, because at that time, I was the only one who was going to be working because my dad was so sick with his cancer, and my mom was taking care of us all. And so I said, no, I have a geology degree in Houston. I have to get a good-paying job to help provide for my family. And during that time, after my surgery, I just couldn't forget all of the sick people. So I called the nonprofit, and I said, “Hey. I really feel like I need to do this, I really feel like I need to do this full time for work. Would you consider negotiating with me?” And we got to a point where I could at least help pay the mortgage and help my parents'

household. And so I began working for that nonprofit in 2013. We were finding a successful way to progress the Superfund process forward and nurture an environmental movement. I knew that I wanted to do more of that type of work. And in order to do that, it was going to take a more robust technical, non-profit organization. So in 2014, I put the wheels in motion to start Texas Health and Environment Alliance. We received our 501 C3 status in April of 2015.

Nivien Saleh

That was a big, big accomplishment from student to head of an environmental nonprofit, and it has survived to this day. So you've been doing something right. So, very cool.

Jackie Young Medcalf

Thank you. It's absolutely been a huge learning curve, but I am very fortunate that there are funders in the State of Texas and here in America that have believed that I'm the woman for the job, and they have supported our work and our efforts. And it's really nice to have funders who truly care about making our environment a safer place for everybody.

The story of the San Jacinto Waste Pits

Nivien Saleh

For the people who don't know about the San Jacinto waste pits: What ended up being the problem there? Why was it a Superfund site?

Jackie Young Medcalf

In the 1960s, what was then called Champion Paper Mill in Pasadena, Texas, contracted a company, MacGinnis Industrial Maintenance Corporation, or MIMIC, to dispose of their waste. And paper pulp waste material from those days was highly contaminated with dioxin and PCBs from the chlorination process, The paper mill contracted this company to dispose of the waste, then the company took the waste via barge, brought it to the San Jacinto River, and dug pits along the banks of the San Jacinto River. Back in the 1960s there was no EPA. There was no permitting requirements, no design requirements to how they had to construct these pits to lining these pits. The only requirement was made by Harris County Health Department. We didn't even have a pollution control back then. The only requirement was to maintain the outer berms so that the waste would not enter the river. And the pits were filled with this paper pulp waste material. They were filled to capacity by 1968, and they were abandoned. I literally have the meeting

minutes from the company from 1968 where they voted to devalue the site to one dollar on their records and to abandon them.

Nivien Saleh

Wow ...

Why you can't leave a Superfund site alone: Subsidence at the San Jacinto Waste Pits

Jackie Young Medcalf

Over time, nature took its course, we have a compounding effect, really, that allowed these pits to make their way into the river and into the surrounding environment because that immediate area is known all around the world for the subsidence or the lowering in elevation of the land. They were along a river. Rivers change course, that's what rivers like to do. They like to shift and move. Then you also have a tidally influenced waterway. So you have storm surges and daily tides that also were then allowed to disrupt this site because nobody was managing the site, nobody was looking after it and making sure it was OK.

Nivien Saleh

Subsidence arises when the land sinks and the land sinks because you pump out groundwater or you pump out fossil fuels. Right. So the the stuff that's on top that used to be on top of the water will then drop down. In your case, that is, of course, a big problem, because if you have the toxins and you have water at just about the same level, when the land sinks, then the water can come in and wash all that stuff away. So that's one thing. Then the other thing that I wanted to say is dioxin. When I was a teenager in Germany, that was one of the few toxins that I was aware of because it was just incredibly poisonous. The problem with dioxin is that you absorb it by eating fish that swims around in the toxic water and the toxins then become part of your fatty tissue. And it typically does not leave. Is that correct?

Why you can't leave a Superfund site alone: Bio-magnification at the San Jacinto Waste Pits

Jackie Young Medcalf

Yes. Dioxin, it doesn't like to be in water. And if it is in water, you then have to question: Where is it coming from? Because if it is in water, it's very likely that it's readily being released into that water or that there's a solvent that has reacted with the dioxin to allow it to be in the water. We have the issue of the bio-magnification, of it making its way into the seafood that humans consume. So it starts by the dioxin not wanting to be in the water and readily settling down into the particles down into the riverbed. And then our smaller organisms are in that sediment. They're consumed by larger organisms. And so it makes its way up our food chain, essentially all starting with the dioxin binding with the sediment in the riverbed.

Nivien Saleh

So that's what bio-magnification is, right? First small animals eat it. Then the small animals are eaten by bigger fish. The bigger fish then get much more dioxin because they eat several of these smaller fish and then humans eat it and they get it in full concentration because the bigger fish have larger amounts of that. And so if you eat several of those bigger fish, then you get the full dose of of dioxin.

The "Silent Spring" all over again: Danger to Galveston Bay fisheries

Jackie Young Medcalf

Yes. So just like how dioxin, when it enters our body, prefers to bind with fatty tissue, it does the same in fish. Then humans come along and consume the fish. That's a way that we can be exposed. But not only is it an issue for humans. There's other species that maybe folks might not think of, like our bald Eagles or Osprey that eat fish. It can make their egg shells very weak. So then when the nests are being sat on by the mothers, they're no longer viable eggs because they're not hard, sturdy eggs like they should be.

Nivien Saleh

I think what you just talked about has had been discussed in a book called Silent Spring by ...

Jackie Young Medcalf

Rachel Carson. We know how toxic this stuff is. This is nothing new. We know that dioxin is said to be one of the most toxic chemicals ever known to man and that it can persist in the environment for a very, very long time.

You know the San Jacinto River waste pits are located in the San Jacinto River, right where it bottlenecks and goes under I 10. It has some of the highest flow rates out of the entire river system right there where those pits are located. So the potential for erosion is great and it's nestled above one of the most fertile bays in our country.

Nivien Saleh

Yeah, yeah, Galveston Bay is a big, big place where you fish for crabs and oysters. And all that goes back into restaurants.

Jackie Young Medcalf

Absolutely. Our seafood is sold across the nation. You know, we're known for things like flounder and that's a huge delicacy on our coast, yet guess what? They're bottom feeders, and where's the dioxin at? It's in the bottom.

Protecting other people from learning it the hard way

Nivien Saleh

Yeah. Many people who maybe grow up in the United States, grow up with certain values, such as: when you make a mess, you clean it up, our government works, we have a functioning democracy, and we have a good set of institutions. So you would think that if people get exposed to toxins like this and it gets found out that we have the institutions to take care of it. But it seems that that is not the case. That is something that you learned and can tell other people. It's not something that most people know on their own.

Jackie Young Medcalf

My family learned this the hard way. And I knew that I had to do everything within me to prevent other families from learning this the hard way. I, grew up here in Texas thinking, we have the Environmental Protection Agency, we have Texas Commission on Environmental Quality, we have these government entities whose missions involve protecting public health and protecting the environment. I thought that if something were wrong with our environment, that somebody would send us a letter, somebody would knock on our door. If there was known contaminants in the aquifer that we're pulling our water from, someone surely would let us know. And we learned the hard way that that's not always the way it works.

Our our water laws only require a public water supplier to test for just over two hundred different contaminants. And here in the Houston region, our industrial complex manufactures over eighty thousand different chemical compounds. So what could go under the radar or undetected is immense.

The San Jacinto Waste Pits hold a lesson about people power

Nivien Saleh

Yeah. What have the San Jacinto River waste pits taught you about health, about government, politics and power?

Jackie Young Medcalf

It taught me that you have to be proactive and look out for the health of your family, because at the end of the day, nobody else can look out for your family or your community like you can. So first step is: Every person has to be proactive. You cannot rely on a public water supplier or a government entity to alert you if something is wrong with the environment that could be making you sick. About government: It's really taught me that government and business can't do it all; watchdogs, entities like ours, like Texas Health and Environment Alliance, is essential.

Our government agencies have some really good people who work in them. But it's a bureaucratic process, and our government entities are spread so thin. This movement has also taught me that our power is people power, our power is an engaged and organized public that uses the press. I once had someone in the Environmental Protection Agency put their hand up in the meeting and say, "well, you know, whatever you say, Jackie could have on the front page of the Houston Chronicle tomorrow." So there is that level of accountability, applying grassroots organizing, strategic science and media exposure can create an awful lot of change.

We must hold polluters accountable, and the EPA needs help

Nivien Saleh

What a compliment, of somebody to say you better be careful what you say here. You better be careful because Jackie Young is here and she'll have this in the press. You you created that accountability.

Jackie Young Medcalf

Thank you. you have to. You have to create that accountability. A watchdog role like the one that we provide has proven to be invaluable. Most recently, we received the design documents for how the waste pits are going to be remediated. And there were all kinds of problems in these documents. But then again, it goes back to the EPA being spread too thin. They get tens of thousands of pages of documents, literally over thirty thousand pages of documents for the design work dumped on them. Then they have to go through them and digest them. And they have pressure coming from their higher ups to keep the process moving. And while we all want this process to keep moving, it has to be done right. Part of the big push to get these waste pits fully removed was for them to be removed in a controlled and engineered setting and not in the next hurricane.

The current state of the San Jacinto Waste Pits: Danger from storm surge

Nivien Saleh

Absolutely. Where's the story of the San Jacinto waste pits now? Is it being fixed? Is it not being fixed?

Jackie Young Medcalf

We are on the road to remediation. The contractors for the responsible parties are working through the design and the waste characterization. That's where we are right now. It looks like we will be through with the design process in early 2021. But we did just receive quite a bit of unsettling information that the remediation of the waste pits is now expected to take seven years to complete. And that's daunting. That's seven hurricane seasons.

Nivien Saleh

What did you expect?

Jackie Young Medcalf

We expected two years for remediation.

Nivien Saleh

Wow. Yes, I did read a document by the Government Accountability Office, which is another federal government agency, which had looked at what it calls all nonfederal superfund sites. And by nonfederal, it

means the sites there are not under control of the federal government. One of those superfund sites is the San Jacinto waste pits. And what the Government Accountability Office found is that that site is a very high risk of flooding if there is just a Category one hurricane. So, yeah, seven years ...

Jackie Young Medcalf

yeah

Nivien Saleh

… is not good.

Jackie Young Medcalf

No, it's it's unsettling. Especially for those who live closest to the site. They're the ones that could receive a direct impact if the site was impacted by a hurricane. Seven years is a is a decent time frame for a potential hurricane to strike our coast or even having inland flooding that could affect the San Jacinto River. A lot of our stormwater drains in the region are routed to the San Jacinto River.

Basically what we have is a really terrible situation in which there's not necessarily a great option, but the worst option is to leave it there in the river, because those pits are are the source of contamination. We have to get that source out of there and out of harm's way for it to be potentially disrupted even more by Mother Nature.

An educational experience at Rice University

Nivien Saleh

I would say, "Jackie, you need to pack your bags and move away!" And maybe you did. But of course, that's no solution because there are so many people that don't have the option of moving away, and then there are people who are fishing in Galveston Bay. For them, you moving away is not a solution. So I really commend you for doing what you're doing.

You have a background as a science major. You have practical experience with trying to organize the community towards a positive outcome, but there were a lot of gaps in your knowledge or your skill levels, I know that for that you decided to get a degree in nonprofit management, is that correct?

Jackie Young Medcalf

It was a certificate program at Rice University.

Nivien Saleh

How did that go?

Jackie Young Medcalf

I was a part of the Leadership in Action program at Rice. So every day I'm learning new things about nonprofit management, nonprofit governance and really all the ins and outs of of how your books are kept different when you're a nonprofit. All of that I've learned from on the job experience. So when I learned about the program at Rice, I knew it was an opportunity I needed to go after because i only know what I know, and I always want to be the best executive director, the best boss that I can be.

The program at Rice taught me so much about all of those fine details of running and managing and building a nonprofit in a sustainable way, but also those skills about managing teams, managing time and personnel and all of the different hats that as an executive director you have to wear. I mean, my favorite part of what I do is taking a dive into the technical data, is looking at the relationship between contaminants in the environment and public health and educating the public, being able to break down these complexities on a level that everybody can understand. But in order to be able to do that I essentially have a business to run. A nonprofit is essentially it's a business. So in order to do what I love, I have all of this behind-the-scenes back-end stuff that has to go in.

Nivien Saleh

Yeah, you have like what, six staff members, you including?

Jackie Young Medcalf

Yes.

Nivien Saleh

So all these staff members need to have a paycheck, right?

Jackie Young Medcalf

That's right. Staff members need paychecks. They need paychecks on time. They need health insurance. You know? People need vision and dental insurance, and they need computers and software and Web security. There's just there's a lot that goes into running an organization.

One of the things that I really loved that I learned in that program was about succession planning. When my health would fail me like it did recently, what happens at THEA when Jackie's health fails her? Who's going to be responding to the emails? Who's going to make sure that paychecks are still getting processed, that our programs continue to push forward, that the important work still gets done?

Jackie Young Medcalf

Through the program at Rice University, I learned about succession planning and having a plan in place. That was incredibly valuable for me to learn and be able to implement in our organization.

The Jones Road Groundwater Plume Superfund site

Nivien Saleh

Now with all that new professionalism that you have, you have been tackling projects other than the San Jacinto waste pits. The first one is the Jones Road Groundwater Plume Superfund site in Cypress, Texas. What's going on there?

Jackie Young Medcalf

The Jones Road groundwater plume Superfund site originated from a dry cleaning operation.The dry cleaner that once occupied this space within a shopping center, from 1988 to 2002, would go out back, walk to the stormwater drain and dump their dry cleaning solvents. That was not an approved or an OK practice, but it's what they did. And it created a plume of contamination underground that over the years has migrated.

And now part of the plume is underneath a residential neighborhood that over half is supplied by private groundwater wells. There's also the potential exposure for vapors that are coming up through our subsurface, through the ground and into the air from this plume of contamination. Whoever might be in that space could then inhale these contaminants. It is also what they call an orphan Superfund site. An orphan Superfund site is kind of like a double edged sword because they don't have responsible parties. And so it is tax dollars, not a company that did the dumping to pay for the cleanup. It's the federal

government, it's the EPA that hires all of the contractors and details the work plans, and everything is done by by the EPA and folks that they hire.

The problem with these type of contaminants that we have at this site, is that the longer they're in the environment, they break down, which with some chemicals can be a good thing. But with these, it's not ... Letting nature take its course is not an option here, because as these chemicals break down, they break down into a product, a chemical that is just as toxic, if not maybe even more toxic than that original chemical that was dumped. The end product that these break down to is vinyl chloride, which is very, very toxic to humans.

Goal 1 at Jones Road: Keeping the EPA accountable

Nivien Saleh

You're a small organization. What is it that you can hope to accomplish there?

Jackie Young Medcalf

One of the things that we've been advocating for to the Environmental Protection Agency is more input and involvement with stakeholders, with community members, with other non-profits. Pre-pandemic, I would go to Washington, D.C., to EPA's headquarters every quarter and had the opportunity to sit down with the administrator of the EPA, the heads of Superfund, the heads of emergency management, and discuss with them what from a community level we need them to be doing and what we need them to be looking at. I had been asking at the region level for a community advisory group for the agency, a platform for community members to express their concerns. And I was getting pushback from the regional level, "Oh no, EPA doesn't get involved with that." When I know for a fact, based on my experience at the waste pit Superfund site that what I was being told by the region was not true. So I had to take that to to headquarters. You know, I had to go to the highest level of the EPA in Washington, D.C. and say, "Hey, we are asking for you guys to set up more of a formal process for communication with the community members. And your region folks are telling me that that's not your role. I need your help holding your region folks accountable."

Nivien Saleh

Jackie to the rescue.

Goal 2 at Jones Road: Getting the air sampled

Jackie Young Medcalf

Oh, my gosh. There were some red faces in that room, I tell you. I said, “This is what the region folks are saying, hey, I need you guys at headquarters. The community needs you.” And they got on it right away in that meeting, a woman left to go handle this. So, part of the goal here with this site, because it is an orphan site, is to level the playing field with communication for the public.

The other goals when it comes to protecting public health: This Superfund site was created in a corner unit of a shopping center. That shopping center is operable today. The air was sampled indoors for three of the units in the shopping center. There's over 10 units, but the EPA only sampled three, and they sampled the indoor air quality because when these type of contaminants come up through the ground. They can then accumulate and hang around for long periods of time. It presents an unsafe scenario, and that's what the agency found when they sampled the three units. So in those three units, they put in vapor extraction systems and have since re-sampled and are now finding safe levels. However, that's where they stopped. They didn't go and test the rest of the shopping units, and that to me goes against everything I learned in college about environmental sampling protocols, right?

Right. You find a problem, you don't stop there. You delineate the problem until you don't find anything anymore. So right now, one of our primary goals with this site is to see that the indoor air in the remaining shopping units is sampled and tested. Then from there we can assess: OK, is it safe? Or does something need to be done to make these these areas safe? We also need the Environmental Protection Agency to continue sampling groundwater wells in the neighborhood that this plume has migrated under. About 49 percent of the homes in this neighborhood were put on city water by TCEQ and the EPA over the years.

Nivien Saleh

Texas Commission for Environmental Quality.

Jackie Young Medcalf

Correct, yes. So the Texas Commission for Environmental Quality and the Environmental Protection Agency over the years have provided hookups to city water for about 49 percent of the homes that sit above this contaminated plume. However, that leaves 51 percent of the community still pulling groundwater wells.

Nivien Saleh

It seems that your role here is first off, to create a link between the community and the government, to make them talk to each other in a proper way, make the government officials feel reasonably welcome,

even though the community's probably angry and help the community keep the government agency accountable. And then what you also do is enhance the environmental literacy of the community, telling them these are your needs. These are your rights. And this is what you have to do to get there. Is that correct?

Jackie Young Medcalf

Absolutely. Yeah, very well explained.

The Greater Fifth Ward Cancer Cluster: Not a Superfund site but under state oversight

Nivien Saleh

The Greater Fifth Ward cancer cluster. Tell me about that.

Jackie Young Medcalf

The community of Fifth Ward is a historically black community. They have Superfund sites, the North and South Cavalcades Superfund sites very close by. And one of the greatest concerns to the community members is the Union Pacific Creosote Contamination. That site is under state oversight. So Texas Commission on Environmental Quality is currently overseeing the process for the plume of creosote contamination that goes back over a hundred years, literally over a hundred years ago rail ties were being dipped in ponds of creosote for preservation and then set on the land, and the contamination was allowed to seep into the ground, but also occurred from rain, raining down on these areas and running off into the communities. In the last year, Texas Department of State Health Services has conducted three cancer database investigations on this community.

Nivien Saleh

In response to whose request?

Jackie Young Medcalf

That was largely in response to elected officials' request. It started out with outcries from the community to their elected officials saying something is going on. We feel this creosote is killing us and that's what community members feel and deeply believe. They were heard, and their elected officials then turned to our government agencies. At the request of Texas Commission on Environmental Quality, our State

Health Department, Texas Department of State Health Services, performed a cancer database investigation. And so for over a year now, we have been working with community members to navigate them through this database investigation process with the state, because most of these investigations aren't designed to find a problem. Things can be overlooked, and they have been for this community. So we're working with community members to make sure that they see justice.

Nivien Saleh

You're white and the community is black, like probably 90 percent black, right? Do you have a problem with establishing a relationship of trust? Or is that not an issue?

Jackie Young Medcalf

There are people who have said that I have been successful with the movement at the San Jacinto River waste pits because of the color of my skin. I can acknowledge that certain doors may have been opened because I am a young white female. But I also know how hard I work and how strategically I work.

One of the beautiful things about the progress that the communities have had in Greater Fifth Ward is that they have united their voices, calling out for the government's help and they have been successful. And their skin is a different color than mine.

The first time I presented to this community I absolutely was nervous. You know, how am I going to be perceived as as an outsider? As someone who's not from this community? As someone who doesn't look like them? They have every right to question why am I coming here, what are my motives, what is my objective? But I think just being able to relate on a human level of, "Hey, I was poisoned too. Contaminants didn't care, that I came from a middle class white family. I was exposed too. I know what it feels like to feel like you got duped by your government and by these companies that say they're good neighbors." Being able to relate on that human element really, really does a lot.

Are there connections to Environmentalism 1.0?

Nivien Saleh

I would like to do the tie back to where we started out, two groups, two communities: Environment 1.0, which focuses on beautifying nature, saving species, bringing plants back and so on, and then Environment 2.0, fighting these struggles that they shouldn't have to fight for the rights of people to environmental safety.

Jackie Young Medcalf

Right.

Nivien Saleh

Do you perceive a connection between those two kinds of groups, because to a certain extent, with global warming becoming an increasing reality, we all have the same interests. But I don't know if there is cooperation. Would you say that there is cooperation?

Jackie Young Medcalf

Sure. There's absolutely a connection between organizations like THEA and some of our organizations that work more on the preservation aspect, because at the end of the day, we're all fighting for the protection of our planet. We're all fighting for an equitable, safe and sustainable place to call home. So there is wonderful synergy in Houston between our groups who are looking at preserving prairies and doing seagrass restoration and putting out oyster beds and growing oyster beds for water filtration because it all is connected. It is all a system that makes up Earth. And so there's a good balance here of people who are looking out to preserve these invaluable lands, systems and species - entities like your Air Alliance Houston that look at real time pollution going on right now in our communities and entities like THEA who are looking more so at historical pollution that happened decades prior, that needs rectifying.

What can Houstonians do to support these efforts?

Nivien Saleh

What would you like to tell people who do not live in your community, who are just regular Houstonians? And how can they support the fight against environmental injustice or the fight for environmental justice?

Jackie Young Medcalf

I would recommend looking at getting involved with one of the numerous environmental organizations around Houston or even spearheading a conversation in your community, right? You don't have to have a formal degree to fight for environmental justice or to become an environmental advocate. You can simply start by having conversations amongst your family and amongst your community, looking around in your community. If you see something, say something. Start looking into, "Hey, you know, I see plumes of orange smoke coming from that business. What is that? What are they doing there? And what does that

mean for our health or the water that it comes down on?" Looking around and having that curiosity can really, truly go a long way. Don't be afraid to talk about your health. Remember, if it is the environment that's the common denominator that's potentially impacting your health, it's going to be impacting your neighbors as well.

Nivien Saleh

And I would add something. Go beyond just looking at what's happening in your community, there's something called NIMBY, not in my backyard. So we don't want that toxic plant in our backyard, in our community. If you have more money, if you're a wealthier community, you can push a company like that out, or you can prevent it from coming in. But that company will be in the backyard of someone. And maybe we should extend our gaze to what's happening in their backyards.

Jackie Young Medcalf

Absolutely. What you've just said resonates with the movement we're seeing in our country this year in 2020. The racial justice movement that we're seeing in our country right now has created an awakening in the environmental justice community and this not in my backyard concept, right? Because if we don't see it, we might not realize it, we might not realize it's going on. One example is our trash. Our trash does not go in my backyard. Our trash does not go in River Oaks. One of the places our trash goes is next to a trailer park in Humble.

I went to Humble high school. And the people who lived around that and live around that today deal with the nuisances and the smells and disturbances that come with living next to one of the only mountains in Houston, and it's made of trash. I think that this movement that's happening in our country right now has awoken part of the environmental movements of, "Hey, wait, we have to be not only paying attention to what's going on in our backyard, but what's going on everywhere.

Resources for you: Visit the EWG tapwater database and THEA

Nivien Saleh

Is there something else you would like to share with our listeners? How about an extra plug by Jackie?

Jackie Young Medcalf

One of my favorite resources for looking into what could be lurking in your tap water is the Environmental Working Group. They have a tap water database that is the most comprehensive database. Step one of being your own advocate is going to this tap water database from the Environmental Working Group and looking at what's in your tap water. Also, something that is really important to us and that we deeply value, at THEA, is education and the sharing of information. And so we regularly push out information on our website and on our social media platforms. We're very active on Facebook and Instagram and we push out educational content. And I would love for any of your listeners to engage with us on these platforms and let us know what their concerns are about what might possibly be lurking in their backyard.

Nivien Saleh

Thank you, Jackie.

Jackie Young Medcalf

Absolutely. It's my pleasure.

Nivien Saleh

This is it for today's episode. For some of the documents we mentioned in our conversation (for example the homepage of THEA and the tap water database of the Environmental Working Group), go to https://HoustonNature.com/6. That's HoustonNature.com/ the number six, for episode six. On that page you'll also find a transcript of today's episode, and you'll be able to add your name to the email list.

And if you found this episode beneficial, please share it with friends.

Wishing you all the best,

I'm Nivien Saleh, with Houston and Nature