A Big Picture Look at Protecting Houston's 22 Bayous and Waterways (Ep. 23)

https://HoustonNature.com/23

Nivien Saleh: What should we do about Houston's bayous? Channelize them? Tunnel under them? Re-wild them?

[Jingle]

I'm Nivien Saleh, with Houston and Nature.

By geographic origin, Brittani Flowers is a West Coaster, and if you want to categorize her by age cohort, she is a millennial. But what marks her most is a profound passion for environmental protection. In 2013 she received her Master's degree in urban planning and environmental policy from Houston's Texas Southern University. She left our city for a few years but returned for good in 2019.

What can I say? This is a special place!

For just a year now Brittani has been the president and chief executive officer of Houston's Bayou Preservation Association.

That's a role with a great deal of historic responsibility: The Bayou Preservation Association is one of our city's oldest homegrown environmental groups. And its late founder Terry Hershey is a towering figure among Houston's conservationists.

So Brittani has big shoes to fill.

How does she go about it? How does she view the Bayou Preservation Association's role in caring for our extensive network of bayous? Where does Brittani think its main challenges lie, and how does her organization address them? What does she have to say about one of Houston's most urgent problems, which is flooding?

Find out!

Nivien Saleh: Welcome to Houston and Nature, Brittani.

Brittani Flowers: Thank you.

Brittani Flowers moves to Houston

Nivien Saleh: You're originally not from Houston, but Seattle. Tell me how you came to Houston.

Brittani Flowers: I moved to Houston for the first time in around 2011. At that time I was operating a small commercial recycling business, and I got exposed to the environmental movement in Houston, meeting different people who were engaged in conservation and just trying to find ways to improve the health of our environment.

From there, I explored environmental policy as a graduate student. I completed graduate school and found my way back to Seattle, working to mitigate housing and transportation issues for the residents there. A little bit of back and forth, and in 2018, I made my way back to Houston.

Nivien Saleh: Why did you decide to make Houston your home?

Brittani Flowers: I've always had an attraction to the city. I got my education here. I learned a great deal about some of the issues impacting our waterways, our air quality and our transportation. I would say it's a new challenge, and I was able to come here and start a family, and now I'm with Bayou Preservation Association and we're doing really interesting work around our waterways.

From trash recycling to protecting our bayous

Nivien Saleh: I read about you in the Houston Chronicle: Brittani Flowers had been appointed the president of the Bayou Preservation Association. And before she was an entrepreneur in trash disposal and recycling.

I thought, wow, that is amazing. First off that you are an entrepreneur, I have no entrepreneurial bone in my body. So I admire that. And then second that you are willing to work with something that's so important. And that's at the same time so disregarded by other people, trash.

Brittani Flowers: Yeah. It's important that we all know that those resources started from somewhere. Someone had to take the time to create this material, put it through

a supply chain and get it to our door. Being mindful about how we utilize and then dispose of those resources was very important to me as someone interested in conservation.

So that was able to translate to the work that I do here. We have many programs that are concerned with waste, litter and how it finds its way in our bayous.

The origins of the Bayou Preservation Association

Nivien Saleh: The Bayou Preservation Association dates back to 1966.

Brittani Flowers: Yes.

Nivien Saleh: So it's been quite established. What brought the organization about, do you know?

Brittani Flowers: Yes. Back in 1966 Terry Hershey was a part of a resident group who was concerned about Buffalo Bayou and the waste and the water quality and a number of different issues that were impacting the residents.

They came together as a concerned group of citizens and created the Buffalo Bayou Preservation Association. That was doing quite well, and many groups began different organizations that were specific to a particular bayou in their neighborhood and concern.

So we saw a need to shift the organization in the 1980s into Bayou Preservation Association. And that way we can focus on all the bayous and waterways in the 22 watersheds in our region.

Nivien Saleh: You are in a way the mother of many organizations that exist now.

Brittani Flowers: You said it.

Nivien Saleh: Yeah.

Brittani Flowers: Yes. And I think we have grown and shifted into a way that allows us to be that historic point of reference for these bayou serving organizations and to have that historic presence in the work that we do.

A vision of healthy bayous and watersheds

Nivien Saleh: Your vision, as I read it on your website, is a network of healthy bayous, streams, and watersheds.

Brittani Flowers: Yes, that is our vision.

Nivien Saleh: When did you first hear that Houston is a "bayou city?"

Brittani Flowers: I think I saw it in an airport. When I was traveling here, I may have seen it on a sign in an airport and didn't quite know what that meant. Coming from the west coast, we don't have a bayou system. We have rivers, creeks.

And I think, yeah I think I really understood the impact of the bayou by being on the bike trails along Buffalo Bayou and seeing how it all connected to quality of life.

These bayous, they're all connected. Where Buffalo Bayou ends, Brays Bayou begins and where're Brays Bayou ends, the Galveston Bay begins. Whether you're upstream or downstream, whether you're on the Southwest side or in the Energy Corridor, if you can find your way to a bayou, you're connected to the rest of the city.

Bayous as connectors of neighborhoods

Nivien Saleh: You don't have to hop in your car to go to another neighborhood, but you can hop on your bike, potentially ride along the bayou and then end up in another neighborhood.

Brittani Flowers: Correct. The City's Parks and Recreation Department, the Houston Parks Board, Flood Control, many agencies have done a great deal of work to create pedestrian paths where you can access the bayous that will connect you to the rest of the city.

Nivien Saleh: An example of how the bayous somewhat bring us together unfolds right in front of where we are now, we are on Brays Bayou. And I see people from backgrounds walk along the bayou like Chinese, Japanese, Black, Caucasian, Indian, Hispanic, you name it. They all walk there.

And if I didn't have that trail there, I wouldn't probably notice that there are that many diverse people in my neighborhood.

Brittani Flowers: Bayous serve as a third place. It has low barriers of entry. There's no economic cost. You can go there throughout the day, and you can experience it in different ways.

I see many parents there in the morning who are just taking their children out for fresh air and for recreation as well as seniors. There's that cross-generational relationship building that exists in these places. There's so many opportunities to meet your neighbors, to grow within your community, to have a sense of connectedness to the place you call home through these public spaces that we call bayous.

Houston is a sprawling diverse city. We welcome so many different cultures from all around the globe. Many of those cultures are experienced to living on water, near water, surviving from water. Tying those together with the Bayou City in a way that is cohesive and attached to a culture that is Houston is one of the goals that I would love to approach from an organizational standpoint.

A bayou city that leverages its diversity

Nivien Saleh: You brought out something that I hadn't thought about before with respect to Houston, the "Bayou City. I had thought, okay, Houston, the Bayou City, we want healthy bayous for a better quality of living, and that enables us to attract talent to the city and make our city more prosperous.

And I think that line that I have in my head probably comes from the Chamber of Commerce where I've heard it before. What I had not heard is - and I absolutely agree with you, is that the bayous are open spaces where people of different backgrounds can intermingle due to low barriers of entry and thereby, perhaps get into conversations like I've had with other people who are on that hike-bike trail.

And this way, maybe we work on creating a city that transcends ethnic, racial, religious boundaries. And perhaps then the idea of the Bayou City can support what is emerging in Houston, which is the, what do they call it? Majority minority city? We know that we are one of the most diverse cities in the country, and the bayous as a network can potentially help us with this multi-ethnicity.

Brittani Flowers: I absolutely agree. And The message that the Chambers or tourism departments express are positive messages, and the bayous have multiple impacts. That's why they're so important to preserve and protect. They produce economics, tourism. But they are also public spaces where class, race, gender, identity become the canvas in which we can explore our common interests. That's why many people like Terry Hershey have gone above and beyond to protect those spaces, because they see the importance in maintaining and growing the richness of Houston and Houstonians.

Nivien Saleh: So Terry Hershey, I understand, she lived in Memorial, correct?

Brittani Flowers: Yes.

Nivien Saleh: And she was wealthy, we can say. So what I hear from you is that she had a vision of bayous that was not just preserving the pretty Buffalo Bayou for the wealthy group of Memorial residents.

Brittani Flowers: We are fortunate enough to live in a society where if you have a good idea, if you're connected to the right people at the right time, with the right information, you can make an impact on the world. People like Terry Hershey, Mike Garver, Rachel Powers and Andy Sansom, they all come from different backgrounds. But they have decided to invest their time, their resources, to preserve these spaces.

And that is not always predicated by your zip code. We have people who are doing dedicated work in 7704, just like we have in 77057. Those inputs into preservation and conservation are as valid and as valuable and as necessary as those who can host parties along Memorial...

Nivien Saleh: Okay. Thank you. Alright. We've got a nice vision for Houston here using the bayous to enhance the fabric of our city. I love it. Looking at your website, I found out that the work of the Bayou Preservation Association covers 22 bayous and waterways. That is an amazing number.

I did not think that we had that many bayous and waterways in our area, but we do. Where do you draw the line of what bayous you include? Because not all of them are in Harris County.

Brittani Flowers: We like to work in the Houston Galveston area. That is an area defined by the Houston Galveston Area Council. It includes Brazoria County, Chambers County, Harris and 13 of those surrounding counties.

Some of that is upstream and downstream. We keep our eyes on all of the bayous that impact our waterways and our Bay.

Nivien Saleh: I imagine that you are not a very big organization.

Brittani Flowers: Correct.

How do you keep track of 22 bayous and waterways?

Nivien Saleh: So how do you keep track of 22 bayous and waterways?

Brittani Flowers: We have a very long history in doing this work, and that has provided us with long-term partners and relationships that keep that network strong. We have our committees, we have our watershed representatives, and we have programmatic and organizational partners. We have council of advisors, and they all help us to understand the developments that are going on across those 22 watersheds.

Nivien Saleh: So when there is a concern, they would bring it to your attention, or if you need some expertise on a particular waterway, you know whom to ask and how to get that information.

Brittani Flowers: Absolutely. Yes. If there is a new development in a particular bayou, for example Little White Oak Bayou, our council of advisors, our watershed Representatives, will contact us and let us know so that we can alert the community, inform them of opportunities to learn more and express their concerns.

Our waterways lack public access

Nivien Saleh: I infer that you have a little bit of the bird's eye view of the bayous. You can get the expertise that you need on one particular bayou, but really your view is more of a bird's eye overarching understanding of what the state of all the bayous is. What would you say are the main challenges affecting the bayous?

Brittani Flowers: There are a number of challenges, and they differ depending on which bayou you're focused on.

But if I were to summarize them into five, I would say that the main challenges affecting the bayous are water quality, bank erosion, channelization, development,

and a lack of public access. I'll start with the lack of public access. As we discussed, our waterways are the networks that connect us as residents and visitors of the city and the region.

In certain areas, pathways, accessibility, informational signage, and interpretive signage for you to have way finding and to understand where you are in connection to the larger network of waterways is lacking, or it's intimidating.

This is where bayou preservation and our bayou appreciation program is important, because it's a place to provide familiarity. It's a place to provide an introduction to these bayous, starting with youth and families. That burden to access is reduced, and people are more willing to explore and get lost in the bayous. Many people are interested in the kayaking and the canoeing aspects. There are also people who are interested in the plant and wildlife that exist along our banks.

So having that introductory access is a real factor to increasing those who are willing to protect, preserve, and to speak to their friends and their family about the importance of not only protecting, but just visiting.

Having eyes on the bayou would reduce some of those concerns that we see around our waterways.

Water quality in the bayous could be better

And as it relates to water quality, many of the things that we do in our home can have either a net positive or negative impact on our waterway. How we are disposing of our pet waste, and is it finding its way into our drainage system?

Nivien Saleh: How you fertilize your lawn impacts the bayous too.

Brittani Flowers: Absolutely. If you fertilize and then we have a heavy rain, that can find its way into our drainage system and ultimately into our waterways and the Bay, as well as how you manage your cooking and your grease that you produced.

Nivien Saleh: What's the problem with grease?

Brittani Flowers: Grease can affect you at home. It can clog your drains and require your septic system to need repairs. You'll have plumbing and piping issues. That's the impact at home. But if it finds its way into our sewer system, it can increase overflow

and backups in our pipes.

The State of Texas has an entire Cease-the-Grease program. And actually one of our most liked posts on social media was a picture of one of the larger sewage drains just clogged with grease.

It costs our taxpayers a lot to have the City unclog those those pipes at the...

Nivien Saleh: Oh!

Brittani Flowers: ...treatment centers. Um,

Nivien Saleh: With respect to public access, my understanding is that Commissioners like Cactus Jack Cagle have been really working on making the bayous more accessible.

Brittani Flowers: Yes. If you happen to live within the loop, you are just a five minute walk or sometimes opening your front door and you can find yourself directly on a bayou. But there's areas in the north and the south that don't have such ease of access. There is a bit of inequity. And so you see Commissioners like Cactus Jack Cagle and the Houston Parks Board and Flood Control working to increase the number of projects in those regions, not only to mitigate flooding, but to also increase the connectivity along trails and parkways so that those who are living in the south and north and some of these disparate areas can now become connected to our more developed local waterways.

Many of the overarching goals of these larger development projects that you see, like the 50/ 50 Parks Board projects, are to reduce flooding. Many of them are taking nature-based development practices into consideration, so that we don't channelize much of those waterways.

One of the other issues impacting our waterways is channelization. All of these issues are interrelated and have a greater impact on access and growth potential in certain regions.

But I'm happy to say that we have exceptional leaders in place at Flood Control, like Dr. Tina Peterson, who was a previous board member of ours and has a comprehensive understanding of nature-based practices and principles. And we're hopeful that many of the recommendations that we provide to the organizations and

agencies who are responsible for development are being heard.

And we're starting to see that for trails along Brays Bayou and Greens Bayou, and a number of these upcoming development projects.

Channelization degrades the riparian zones of our bayous

Nivien Saleh: I should add when I say Commissioner Cactus Jack Cagle, what I meant was Harris County Commissioner Cactus Jack Cagle. A member of the county's leadership. The next thing that you mentioned on your list was channelization?

Brittani Flowers: Yeah. So channelization is one of the solutions engineers have used to keep our bayous in place, increase the rate of flow and hopefully reduce some of the impacts of flooding.

But unfortunately we have learned that this does not always transport water as quickly as we would hope. So we still see flooding when we have large rainfalls within a short amount of time. And the concrete banks also do not allow the water to infiltrate the soil, which does not bode well for the overall quality of our riparian zones. I know I'm throwing a lot of different terminology out. But in a traditional bayou that has been preserved in its natural spaces, you have the water, and then you have the buffer zone, which we identify as a riparian zone where you will see soil, plant life, then you'll see larger shrubbery, and then trees will start to be visible. Then you get to the upland where we have our trails. And many times we have parks and recreational spaces. When water doesn't get to infiltrate the soil, it quickly needs to run downstream.

And that is another outcome of flood of fast water or floody heavy rains is what I'm trying to say. Yes.

Nivien Saleh: And also, if you want to use these trails as linear parks to expose young people or people who don't get to go into nature very often, if you want to give them a nature experience, a channelized bayou is not the best thing, because there's not very much life in the water all the way until the concrete banks end. And so you lose a lot of opportunity for people to engage with urban wilderness.

Brittani Flowers: Yes. Channelization was a solution that was imposed to mitigate the impacts of flooding, but not only does it affect the aesthetic quality, as you

mentioned, being able to access wildlife in an urban environment, but it also has an impact on flowers and birds and our native turtle habitats, butterflies and Monarch spaces.

We're not recommending that all channelization be remediated, but we are saying where there are spaces that have not been channelized, how do we preserve them and make sure that we're applying the most up to date best practices for those areas?

Nivien Saleh: Is channelization still a big trend?

Brittani Flowers: I think it's beginning to decrease. As I said, we have leaders in place who understand the importance of riparian habitats and preserving those spaces.

We also have science and enough data now to showcase the importance of preserving these spaces. And you don't hear as much discussion around channelization as you did, maybe 20 or 30 years ago.

Nivien Saleh: That is positive.

So we have public access. Which one of your other points did we ...

How much development can our waterways tolerate?

Brittani Flowers: Development and construction along the waterways.

Nivien Saleh: In the flood zones. Yeah.

Brittani Flowers: It's so attractive to live on a bayou. You can visit with your neighbors. You can see wildlife.

But it also has an impact when we want to develop close to these bayous. When we're in a city as old as Houston, there is minimal space for growth. And especially as we try to mitigate the impacts of sprawl, we need to have a more densely designed city.

And so we're all for density, and we're all for multigenerational, culturally diverse neighborhoods that are vertical, if you will.

Nivien Saleh: Vertical. You mean like several story buildings, correct?

Brittani Flowers: Correct. That is one of the ways to decrease our urban sprawl and densify our cities to be more logistically, culturally and environmentally efficient. Density is a good thing. With the flood plain and the ease that certain areas of our city flood, it's important that organizations like Bayou Preservation share information around green infrastructure to reduce the impacts of flooding.

Nivien Saleh: When I was still a professor, I had a former student who bought a house - I think she just closed on a home. And that was close to one of the reservoirs. Then Harvey came maybe a month after she closed on it. And it got flooded. I think because they released the waters, and the entire neighborhood was flooded. It was heartbreaking for her. And I think part of the problem was that she did not have the information to understand that this is not a good place where you should buy. Maybe our leaders should do a better job to encourage residents to build in some areas and not in others and maybe not open everything to development, because what accumulates far out in sprawling Harris County can end up in the middle of Houston and flood local residents here. No?

Buyouts in floodplains: a conversation we need to have

Brittani Flowers: I think that is a good point. One of the things that we're discussing within our committees and with our task force and stakeholder groups around flood mitigation is buyouts.

It's very sensitive topic. It's not always a politically positive topic. Politicians don't always wanna get into it, because many of the areas that would need to be bought out are in wealthier neighborhoods. But it is a factor that we should consider.

There are many news stories that talk about people doing flood insurance four or 5, 6, 7 times, because they've been allowed to continue to rebuild in these areas that are known to flood and been degraded so much that they don't even fall within a hundred year flood plane. Initially when doing all this development, they were doing this off of 500 year flood planes, but that's not our current reality anymore.

With climate change we're having floods, droughts and wildfires. And so the metrics that were used to define these 500 year flood plane maps 20, 30 years ago are obsolete. We have to be realistic about putting moratoriums on where new

development can take place and where redevelopment can take place.

Unfortunately, if we have to spend $3 million or $10 million or $100 million to buy out communities, it is better than the $30 billion that will be required to tunnel to decrease the impacts of flooding. We need to get realistic, and we need to start having conversations with our community around the economics, because taxpayers are going to pay for this one way or the other, and we just need to be responsible.

We need to be honest with our community about what it's going to cost. Because my daughter is two. And if we agree to produce a bond that is going to allow a $30 billion tunnel to be built over however many years, my daughter's gonna be paying for that.

And that's not right. Many of the dollars that we got from the federal agencies to mitigate the impacts of Harvey, those projects have not broken ground yet. Public Media has a fantastic podcast right now. I believe it's called "Where the Flood Waters End," talking about many of these issues.

We have to get serious. The impacts of the I-45 project that TXDOT has been trying to push down this community, those initial public comment period started 16 years ago, and they haven't broken ground yet. I hope leaders are being responsible.

We have all the numbers. We have the data, we have the metrics. And regardless of where you fall on, this is not a, we need to stop energy production. This is " we know the impacts, we know the data, we see it, we are experiencing climate change right now. What are we gonna do?"

The U.S. Army Corps of Engineers wants to fix Houston's bayou system

Nivien Saleh: Speaking of that. The US Army Corps of Engineers wants to protect us from flooding. And there's been this controversy. They have Buffalo Bayou in its visor as part of a flood prevention plan for Houston.

Can you give the people who are not that involved in it just a little bit of an overview of what's happening?

Brittani Flowers: That whole discussion around buyouts is that. We can only put bandaids for so long. Let me start off by saying that regardless of where the Army Corps of Engineers sets their sights, whether it's Buffalo Bayou or whether it's the Ike

Dike near the coast, I encourage them to come to the City, set up shop, put a satellite office here, hear what the community has to say.

Take time to understand what those who are on the ground, who have been doing this work in communities have to say. There are many people who have a positive view on these development projects. And there are many communities who are not as informed as they should be. And although we, as an organization, don't put our sights on any particular bayous and we are working in partnership with organizations that serve their particular bayous, I would encourage a top down and a bottom up approach, so that the Army Corps of Engineers can meet the communities that they're hoping to serve in the middle.

Nivien Saleh: So what you're saying is that right now it's pursuing too much of a helicopter approach where it just comes in for a moment, takes stock and then leaves instead of being exposed long enough to the local residents to understand what the real concerns are and what the potential for solutions is?

Brittani Flowers: And, And we have great office space here, I

Nivien Saleh: Absolutely. Houston has great office space.

Brittani Flowers: I encourage them to spend time here, send a staff member here. And not just the interns or the subcontractors that you hire to do the community outreach, but really put a staff person in place who has decision-making ability. You need a person who is vested in the agency and who has the voice to leverage a potential review of the current direction.

I also think that many agencies outside of the Army Corps - federal are trying to address a whole host of issues, whether it be equity ...

Nivien Saleh: With relation to Buffalo Bayou?

Brittani Flowers: With relation to projects in general. We are concerned about all of the bayous within the 22 watersheds. And we are engaged in a number of discussions outside of just the Buffalo Bayou project. And the consensus is that the projects that are being recommended are not in lockstep with the plans and projects that our City and County has deemed priority areas.

The local communities need to understand what the tunnelization project means and costs

Nivien Saleh: Oh, so the Army Corps of Engineers wants something different than the City and the County?

Brittani Flowers: The City and the County have spent a great deal of time collecting community input.

And that input is translated into plans like the City of Houston's Resiliency Plan, City of Houston Climate Action Plan. That's what I mean by collecting community input from the agencies that they speak with.

Buffalo Bayou, they're set. The people who live over there, they have enough money to fight anything that they don't like into perpetuity.

They can set up an endowment to fight it. But the tunnelization project is not going to only affect Buffalo Bayou because the reservoirs have to go somewhere.

Nivien Saleh: You said, "the tunnelization project". So the Army Corps of Engineers wants to tunnel under the City?

Brittani Flowers: They're proposing a total of eight reservoirs. It starts at Buffalo Bayou, but it's going to go all over the region.

And I don't quite know how to talk about it in a way that makes sense even to me, because they have to do it in phases. The first phase is along Buffalo Bayou. But then there's another phase that would impact Cypress Creek and Greens Bayou up north near Bush International Airport.

So the Harris County Flood Control District they're doing a feasibility study now for storm water conveyance. And the study is to investigate the potential to reduce flooding risk by constructing large diameter, deep underground tunnels to convey storm water.

Nivien Saleh: And it would be over numerous parts of the City of Houston. That sounds major.

Brittani Flowers: Correct. And that's why when I talked about buyouts: What's cheaper...

Nivien Saleh: Buyout or a super large tunnel?

Brittani Flowers: Deep, underground tunneling project where we have to pray that Elon Musk's boring machine... you know, I'm not an engineer, and they have engineers looking at this and studying this.

Nivien Saleh: But of all the Houstonians, you are a concerned citizen. And you probably speak for many other citizens.

And if you are saying you have questions, then many others would have questions. And if you say you don't quite understand it, then hey, what chance is there for the rest of us?

Brittani Flowers: Yes. As an urban planner I'm trained in understanding that it takes many opportunities to engage and inform a particular community. And then you need to go on and identify all the other particular communities that you need to speak to.

I don't know if they have done their due diligence. If you're listening to this and you have questions, I encourage you to go to the County's website, the Harris County Flood Control district's website.

And I encourage you to reach out to the Houston Urban Development Department and ask questions. I myself am still trying to understand, what's the start date? When would we break ground? How many people would this impact? How quickly will this outpace the current trajectory of flooding in our region?

When will we say that we won't pay you to rebuild these houses again? Again, we're still trying to figure out how to deliver the funds that the federal government gave us for Harvey. And we still have neighbors who are trying to rebuild their homes after Harvey, which happened in 2018.

So my concern is: what are you gonna do now? We're in the middle of hurricane season now. And will this potentially $30 billion make sure that my neighbors don't flood in 2030?

I haven't been able to have those questions answered in the several planning meetings that I've attended.

Nivien Saleh: With the Corps of Engineers.

Brittani Flowers: Yes.

And the Harris County Flood Control District.

Nivien Saleh: Let's take a look at some of your programs, cause you don't just sit in your office, talk about politics all day long.

Brittani Flowers: We are hard at work. Yes. Yes.

Nivien Saleh: What are your programs through which you realize your mission?

The Bayou Citizen Science Program

Brittani Flowers: Our vision is a network of healthy bayous, streams and waterways. We accomplish that vision through our four programs: our Bayou Appreciation Program, our Bayou Citizen Science Program, our Stream Corridor Restoration Program and our Trash-Free Bayous Program.

I enjoy all the programs. I think their impact is invaluable. But my favorite programs, if I could pick without telling too many people, are our Bayou Citizen Science program and our Bayou Appreciation Program. The Bayou Citizen Science Program is so interesting because it allows everyday citizens to become stewards of the bayou. We do that with Texas States' Meadows Center for Water Quality and Environment training. And so anyone who is 16 or over can go through our two day training program. Then they can collect water quality, be a citizen science, help to improve the water quality in our bayous, as well as provide important data that helps professional water quality monitors assess pollutant levels and the impacts of the water quality on habitats in our region.

Nivien Saleh: What neighborhoods do these budding citizen scientists come from? Do they come from all over?

Brittani Flowers: They come from all over the region. We have a specific focus between I-45, 288 and Beltway 8. And it's as far north as the Woodlands and as far

south as Galveston Bay.

And they come from all sort of backgrounds. The only experience that you need to bring in qualifications is you be 16 years of age or older, have an interest in our waterways.

Nivien Saleh: Data?

Brittani Flowers: You don't even need to really be passionate about data. We teach you how to collect the data and to report your findings. You're also encouraged to find a bayou in your neighborhood so that it's convenient. And it also reduces any transportation barriers to collecting consistent data.

But you don't have to have a real science background. You don't have to have a graduate degree or anything. You just have to have a passion and dedication to your waterways.

Nivien Saleh: So you could be a high school student?

Brittani Flowers: You could be a high school student. Actually, we encourage high school students to learn more about the program because you can become a lifelong steward of your waterway through this. And also you gain information that is transferable. So if you are a student, maybe through this experience, you learn that you have a real interest in flood control, water quality, bank erosion, and you potentially want to pursue that as a career path.

Nivien Saleh: Let's say somebody hears you and says maybe that would interest me, but they don't really want to commit. So it's not like they want to, enter a marriage contract with the Bayou Preservation Association. Can they still come and find out about this program?

Brittani Flowers: Absolutely. You can visit our website, bayoupreservation.org, where there's plenty of information about our Bayou Citizen Science Program. We do ask that if you go through the training that you are dedicated to that bayou or stream.

Or if you are an educator and you would like to get the training to share this knowledge with your students or the youth that you engage with, we encourage that as well.

The Bayou Appreciation Program

Nivien Saleh: What's your second favorite program?

Brittani Flowers: My second favorite program is the Bayou Appreciation Program. I really enjoy that because you don't need any experience. You don't have to be any age. It's open for people from all walks of life.

It's your first way to get to know the bayous. As we talked about, bayous are a great third place when you're not at work, school or home. They're a free public place that you can enjoy and where you can learn more about nature and our urban environment. We offer interpretive guided walks and tours. We're also connected to many organizations that do activities geared towards all different age groups, demographics, recreational needs.

I even recently saw a couple. They were a high school couple on a date, and they were doing water coloring along one of the bayous. There's all kind of recreational activities that can take place at the bayous. Bayou Appreciation encourages and sometimes facilitates many of those activities.

The Stream Corridor Restoration Program

Then we have our Stream Corridor Restoration, which is on the ground. We are at parks. Specifically, we're at Challenger Seven right now doing restoration work. Over the last three years, we've removed over 70 acres of invasive non-native plants from the park.

Cool.

Which is a huge accomplishment. When we started at Challenger Seven, 90% of the park was inundated with invasive non-native species of plants, shrubs and vines. It was just a wild habitat that had not been looked after. Chinese tallows and cat's claw had really taken over and suffocated the native plants and displaced a lot of the wildlife that is native to the region along Clear Creek.

Through our stream corridor restoration work, we've been able to increase the native species to now 90%. So we've been able to flip that ratio.

Nivien Saleh: Congratulations.

Brittani Flowers: Thank you. Which is quite impressive in just three years. We have a hardworking, dedicated team of conservation crew and members who do that work throughout the year.

So that's one aspect of the Stream Corridor Restoration Program. The other aspect is providing regional training. We train staff and park technicians at riparian sites, for example Armand Bayou, Buffalo Bayou, Clear Creek, to monitor and evaluate the impacts of the restoration work that they're completing on each individual site. It's really exciting. And it's a little nerdy, but it allows us to have a better picture of the impacts that we are making as a collective.

With Bayou Preservation Association being somewhat of the mother of this sort of preservation work in the region, we are looking towards the future. And we are trying to position ourself to say, we have all this history, we have these outstanding relationships with organizations and agencies. How do we provide a central database for all of this data that we're collecting and all of the outcomes and inputs that we're accomplishing as these disparate organizations in one place?

Nivien Saleh: That would be great.

The Trash-Free Bayous Program

Brittani Flowers: So that as a region, we can see the regional impact, as opposed to just the one off approaches that we're taking as individual organizations. That's how we are seeing our vision into the future. We hope to bring online some of these projects starting in 2023.

And then lastly, my last favorite project is the Trash Free Bayous Program,

Nivien Saleh: Not the least favorite project, but the last favorite.

Brittani Flowers: My last favorite project is the Trash Free Bayous Program.

That program has a massive impact. We are a regional partner for the Annual Trash Bash Program, which brings together over 30,000 volunteers annually to remove trash from our waterways. We also focus on litter prevention as it relates to non-point

source pollutants.

That's providing residents with free pet waste bags, encouraging multifamily housing and apartment buildings to have pet waste collection stations on their property and doing everything we can to reduce the amount of waste that finds its way into our waterways. Also it includes working with the precincts and commissioners to look at how do we include equity in the way that we look at environmental crimes around illegal dumping.

So we have a lot of exciting projects in the works for 2023.

Nivien Saleh: Then you have another item that I became excited about when I saw it on your website. And that is the annual symposium, which happens, I think this year on September 28th. What is that all about? Is this exciting? Should I sign up for this?

Brittani Flowers: Absolutely. Absolutely. This is our annual event where we bring together thought leaders from across the region. This year, our symposium is focused on the cost of doing nothing, opting for resiliency. Ryan knows the language down pat. She is dedicated to all of our public facing events, whether it's the gala, our annual educational symposium or our Terry Hershey Bayou Steward Award Luncheon. And so it would probably be best for you to speak with Ryan.

"The Cost of Doing Nothing": The Bayou Preservation Association's Annual Symposium

Nivien Saleh: So we'll have Ryan.

Brittani Flowers: Hi, I'm Ryan Francisco. I am the Outreach and Engagement Manager for Bayou Preservation Association.

Nivien Saleh: Please tell me about the annual symposium. What's gonna happen there?

Ryan Francisco: This year is the 19th Annual Symposium. And post COVID we're gonna host it again virtually. It's a two day event. It will take place on Wednesday, September 28th, and also on Thursday, September 29th, from 8:00 AM to 12:00 PM. The theme is "The Cost of Doing Nothing - Opting for Resilience", and we're asking regional leaders to come.

What we are doing is focusing on building a resilient, more sustainable community. Along the way, we want to inspire action and to support these efforts by having a discussion, "How do we manage post COVID post Harvey in this region "?

We would like to update sustainable solutions and present a action agenda towards the end of the symposium, how we all as a community can pitch in and help the region.

Nivien Saleh: So it's a symposium that informs people, but then towards the end, you want to get into an action plan.

Ryan Francisco: That's correct. The takeaway is have a action agenda because a year later when we have our 20th annual symposium, we would like to see what has changed?

Tickets start at $40, which covers the two day event. And for additional $10, you can have a CEU, which is a continuing education unit for professional development.

Nivien Saleh: So anybody who needs continuing education can get a continuing education unit by participating in this event.

Ryan Francisco: And it's about 1.5 CEU credit per day.

Nivien Saleh: So three credits all in all if they attend both days, correct?

Ryan Francisco: That's correct.

Nivien Saleh: That sounds like an interesting event. And it's not too expensive.

And hopefully sometime in the future, it'll be in person again. Cause that's just really, what's more fun, mixing and mingling ...

Ryan Francisco: We're gonna have an after work social mixer on day one at Kirby Ice House. A chance for everyone to get offline and be in person, meet with the speakers.

Every November: The Terry Hershey Stewardship Award Luncheon

Nivien Saleh: Then there's another event in which you have been heavily involved, and that is the Terry Hershey Bayou Stewardship Award Luncheon.

Ryan Francisco: Yes, that will be on November 1st from 11:30 AM to 1:00 PM at the Junior League Houston.

We will be celebrating and honoring the awardees this year. We have Rachel Powers as the nonprofit sector.

And we also have Andy Sansom. He is our public sector recipient and also Mike Garver as the private sector. That's the reason why the Terry Hershey Bayou Stewardship Luncheon was started. It's highlighting the people who are doing important work with our waterways, helping the natural richness that thrives throughout Houston. We want to recognize and honor these important people and also inspire future stewards.

Individual tickets cost $250.

Nivien Saleh: And what this money does, it's a substantial amount of money, but what this does is it supports future conservation work, right? So it's not just for a super duper meal. It actually is money that will be put to work in the environment in the future.

Brittani Flowers: You know, many organizations do a lot of different fundraising activities throughout the year. But not only are we conservative when it comes to thinking about our waterways and preserving, but we're also conservative with the way that we function. We're a lean organization that has a large reach. And although the ticket prices may have a greater starting point, we don't ask very often.

The fundraising that we do through events like the Terry Hershey Bayou Steward Award Luncheon and our spring gala, as well as our educational symposium, allow us to have a larger impact throughout the year, train those water quality monitors, work with neighborhood groups to organize youth-led litter cleanups, and bring resources and information to practitioners around stream corridor restoration.

So we hope that those who are interested see that we are mindful of that ask and that we are dedicated to utilizing those resources to have the greatest impact.

Nivien Saleh: And for those people who cannot make it to the award luncheon, what recommendations do you have for them? If they want to support the work of the Bayou Preservation Association?

Brittani Flowers: You can always visit the website. And if you're interested in particular programs, you can support those programs through our website.

If you are interested in coming to our events, but you don't wanna start right off at the luncheon, we have a number of different activities throughout the year, whether it be guided walking tours, or if you would like to become a trained citizen scientist, or if you are an educator and you have a group of students who would like to become mini-scientists, we have many different points of entry to engage with our organization.

Apply for an internship at the Bayou Preservation Association!

I also wanna do a plug that starting next year we'll have a number of internships available. If you are interested in conservation, marketing and communication or preservation. That's another opportunity to engage with the work that we do.

Nivien Saleh: Nice. So submit an application for an internship.

Brittani Flowers: Correct. And you can also just follow us on social. We have all of our information there.

So if you like to go to the website, it's Bayoupreservation.org. But our socials are updated more frequently and have the most up to date information. We're on Instagram, LinkedIn, Twitter, and Facebook.

Nivien Saleh: How about TikTok?

Brittani Flowers: I'm learning it. I've been the younger people are just doing it way better than my millennial self could do it.

Nivien Saleh: and

Ryan

Brittani Flowers: But if you are a young person who's interested in social media and communication, we'd love to be on TikTok.

Nivien Saleh: Maybe that's an opportunity for the next intern?

Brittani Flowers: Yes. Yes. Let us know, reach out to us.

Nivien Saleh: Thank you so much, Brittani and Ryan.

Brittani Flowers: Thank you for having us all.

Nivien Saleh: This is the end of today's interview.

For more information on the topics we discussed, head to HoustonNature.com/23. That's HoustonNature.com, a slash, and the number 23 for episode 23. There you can also sign up for my newsletter, "The Nature Memo," and be notified whenever a new episode comes out. As you know, I don't have a fixed publishing schedule but publish when I get around to it.

On the website you will also find links to the Bayou Preservation Association and its social media assets.

Maybe you'll consider signing up for a training to test your bayou's water quality, or perhaps you decide to apply for an internship. That would be great!

If you liked the episode, please share it with a friend!

For Houston and Nature, I'm Nivien Saleh.