

# Podcast Transcript

## Unpacking the Equitable Wastewater Futures Program

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[INTRO MUSIC PLAYS, Going Somewhere by Aves]

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Jae Williams (host): Welcome to Bridging the Gap, a podcast that brings us closer to understanding how environmental public health shows up in our everyday lives. I'm your host, Jae Williams.

Today, as part of our three-episode series about On-Site Sewage and Septic systems, or OSS, we are taking the time to think a little beyond the technical aspects. While it might be easier to consider what's gone down the drain as out of mind, the generation of wastewater is something we all have in common. However, the options we each have to manage it don't always look the same. How do infrastructure, history and inequity play a role in environmental public health? Our guests are here to bridge the gap.

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Corrina Marote (guest): Good morning. My name is Corrina Marote. I am the Equitable Wastewater Futures Program manager and I have been with King County for just over a year.

Julie Horowitz (guest): Hello, my name is Julie Horowitz. I'm a strategic Development analyst with Environmental Health Services, that means I work on policy and planning. And in this conversation, I'll be leaning a little bit on my past role where I worked with our Community Environmental Health section that includes our on-site sewage system programs. I've been at the county for about six years, five years in that previous role and about a year and a half I guess, in this role. Thank you.

Jae: Welcome, Corrina. Welcome, Julie. I'm so glad to have you on the show and I'm excited to dive into discussing this program.

Today we are talking about the Equitable Wastewater Futures Program and we need to understand a little bit more about septic systems. Corrina, can you talk to us a little bit about septic, particularly as it relates to King County?

Corrina: So, when you flush your toilet or you run the sink, all that liquid waste has to go somewhere and it just can't go into your backyard. So, if you're in an urban area, it goes into the sewer system where it goes to the wastewater treatment center and gets treated. If you are on a septic system, then that goes into your own individual wastewater treatment system where it goes into a tank and then it goes out into a drain field, which is part of your yard. And that's where the final treatment happens is in the soil in your yard. And there are about 37,000 of

these septic systems in urban King County, which is about 40% of the total number of septic systems, out of a total of 85,000.

Septic systems do have a lifespan. They typically can last around 30 years, maybe up to 50 years if they have been well taken care of. And then another piece of undisturbed soil, of approximately the same size, is required for that drain field to work. Which is why sewer in urban area is desired, because then it removes that land requirement for wastewater treatment.

Jae: Thank you for that, Corrina, I thought it was particularly interesting to learn that 40% of the septic systems in King County are located in urban setting. That's a lot.

To set the stage for us, will you give us a quick overview of the Equitable Wastewater Futures Program?

Corrina: Yes, I would be happy to. So, the Equitable Wastewater Futures Program, it's housed in the On-site Sewage program within Environmental Health Division of Public Health. And the purpose of this program is to proactively plan to address aging infrastructure, and our goals are to build partnerships with the sewer utility districts and funding agencies to identify pathways for property owners to connect to sewer when currently, it costs an average of \$100,000 or more per property, and this is all the responsibility of the property owner. This is why we are doing some pilot projects and really looking at funding opportunities to move this program forward.

Jae: I think it would also be great to get an overview of what happens when things go wrong with your septic system and some of the events that led to the creation of the Equitable Wastewater Futures Program. Julie, can you tell us about that?

Julie: I'd be happy to. As Corrina was saying, right, you have this treatment system in your backyard and it's kind of amazing because, when the water is treated through the tank and the drain field that's going through and into the soil, it's actually going back into groundwater. And in some ways, when you think about the water cycle, and that we need water going down into the ground so that we can use it later, right. People who live on wells are pumping water out of the ground for drinking, right.

That water has been cleaned and it goes back into the system, which is really, really actually valuable.

So septic systems play a really important role in our wastewater treatment. But when they stop working, it's a really big problem because when that poopy water is not being treated, right, that means that it's still contaminated. It has bacteria, it has pathogens in it that can make us sick, right.

And so, when it's not going through that system in the ways that it's supposed to we call it a septic failure, and that can look different ways. It might mean that there's a big puddle of really smelly water in your backyard that's not been treated. It might be that it's going underground somewhere but not being treated. Maybe it's backing up into your house. It can look a lot of

different ways, but when that treatment isn't happening, it becomes a public health issue that people can get sick from it.

As Corrina was saying, right, when these systems get older, sometimes they stop working. We think about it a little bit like a car. You have to take care of your car for it to run well, right? You have to do regular oil changes, you need to keep up your tires working. Septic systems need the same thing. They need you to be taking care of them on a regular basis. And, when you do that, your car lasts longer, right? But at some point, your car still stops working, and the same is true for septic systems.

Around like 2020, 2021, we started seeing more septic failures happening in the county. And we think part of this was that everybody was home during the pandemic and they were using more water because they were all in their houses. Everybody was doing school from home, they were working from home and it put more strain on older septic systems.

We've started seeing more and more failures happening of septic systems in King County and we know around 75% of them are past their design life and that means that they're over 30 years old. Most people don't keep their cars for 50 years, right? So, when a septic system, like a car gets really old, it's more likely to stop working. And we know that, across the board, our septic systems are getting older in King County.

When a septic system gets old and fails in a rural area, there's room to replace it, to put a different system in a different spot on the land that's there for that property. But when a septic system is in an urban area, like we're talking about, 40% of them are in urban areas, if you think about a city, the spaces for all the houses and everything and the streets is really small. So, in a lot of cases, we don't have room to replace systems in ways that build out a system that has room for the drain field and the soil and everything to do its job. And, the way we've planned our cities, there's sewer infrastructure. So, the idea is that when you produce wastewater, it's going into a pipe that's going into a bigger pipe that's going to the wastewater treatment plant. But when that isn't present then we run into problems and so that's a little bit of what we ran into that started this program.

The programs that work with septic systems, there's the On-site Sewage Permitting Program and On-site Sewage Operation Maintenance Program. So, between them they sort of support the life of septic systems right, from when they are built to their end, and working with the industry and homeowners on that. The programs were seeing more and more really challenging cases where there were folks in urban areas that had failing septic systems where, for them to connect to sewer would be really expensive, but there also wasn't space on their property to put in a new septic system.

Just to give one story, here was one failure in October 2020 that came about. There was a septic tank that was found to be failing and it was probably from when the house was built in 1925 so the system was almost 100 years old. The house was in the city of Renton and close to Lake Washington and behind the house was a ravine that had a creek that ran into the lake. When we

talk about the bacteria from failing septic systems, one of the risks is, that if it runs off into a river and then goes into a lake where people are swimming, right, we're exposing more and more people to those pathogens and there's a health impact, right, when that occurs, or there can be. And so, this property was too small to fit another septic system but the city of Renton has a requirement to connect to sewer, but they said because it was so complicated, because it would have required sewer extension and a pump station and all of these things, it would cost probably around \$220,000 to connect this property to sewer. To put in a septic system would have meant digging up the only available space, which was their driveway and it probably wouldn't be a big enough system and it wouldn't be a great set up because it's really dense. And it would have costed about \$50,000. There's a single mom who's planning to send her son to college, and she has a failing septic system. And she is like, "well, I was going to help my son try to pay for college, but I have to figure out some solution to this wastewater problem."

And the reason I'm sharing that story is right, like, each one of these is a really complicated situation. And, you might be like, "Oh, well, that's just like one really complicated situation." Looking at the map for this area, where her home is located, we have over 20 documented failures in that area, around that time period, right. So, it's not just one person, it's lots and lots of people individually having the same kind of problems. And this is where the program came from. Hearing from lots and lots of individual stories. Something that we have the advantage of seeing when we're talking to all of these individuals is putting together those individual pieces of puzzles, like essentially into a bigger picture, right? We can see that bigger picture because we get to see all of the pieces. And that's really what it was. This is where the program came from, is that we were hearing from all these different folks in urban areas that had really challenging situations. But like, we have to figure out something because there's like almost 40,000 of these systems in the urban area and they're all getting old. So, we have to do something to figure out some, broader way of looking at this and not just trying to piece it together one by one to help people have band aids to solve this problem.

Jae: Thank you for that, Julie. I think that helps us to understand that these are not isolated incidents. And I also really appreciate you telling that story and helping to personify the experience of what it's like and the types of choices you may be having to face should your septic system fail and the astronomical costs that can be presented when you're trying to consider a solution.

Given the historical context, can you tell us a little bit more about why this program is happening now?

Julie: It was a combination of a problem and an opportunity that that presented itself. In Washington state, there's something called Foundational Public Health Services. And Foundational Public Health Services is, in a broad context, everyone in Washington state having access to public health resources and support in a baseline sort of way; clean water, clean air, clean food. Obviously, all of those things are complicated, but the idea is that public health systems are providing some baseline of support across the system. That concept has been around for a while, but what occurred more recently, and in particular during the pandemic, was

funding for Foundational Public Health Services. And so, all of a sudden, the state legislature started appropriating funding to support Foundational Public Health work. And they did that by essentially allocating money to state health department, local county health departments like us, tribal health departments and, essentially, sharing resources to advance that goal of public health across the state. So, this opened up an opportunity for us to fund this equitable wastewater work, with this problem that we were seeing of failing urban septic systems; it enabled us to have funding for a position to start to work on this problem more specifically.

Jae: Thank you so much, Julie, for that additional context. It sounds like there were many things that set the stage for the Equitable Wastewater Futures Program.

Corrina, I know that you work directly with the program currently. Can you tell us a little bit more about your job and the current activities of the program?

Corrina: Yes, I'd be happy to. One of the tools that we have is a Social Vulnerability Index that has been provided by the Centers for Disease Control or CDC. We're using this tool to identify areas still on septic systems that have higher social vulnerability. And we have two pilot projects going on, one is in Skyway and the other is in an area that's kind of north and west of Tukwila. Both of these neighborhoods are ranked high on the Social Vulnerability Index and were able to qualify for some special one-time funding from the King County Climate Equity Pool. These contracts are going on currently with Valley View Sewer District and Skyway Water and Sewer District, and they are extending main line sewer into these neighborhoods in order to connect hopefully about 24 houses that are currently on old septic systems will be connected to sewer. That is our current project.

Jae: Taking into account that you've consulted this Social Vulnerability Index from the CDC and you have information already about the septic systems of King County, where does community input play a role in this program?

Corrina: That's a great question. I think community input is necessary to for this program to really succeed. Having the community support conversion from septic systems to sewer, I think it's going to make this program very successful. For the current projects, the sewer districts did have some community meetings to gather input on whether or not they wanted to have sewer extended and they had an overwhelming amount of enthusiasm for that.

So, building on that, in order to find out you know, how other communities that are ranked high on the Social Vulnerability Index might feel about sewer conversion in in the future. These are urban areas, so it is expected that at some point sewer is going to come. Some of this depends on available infrastructure funding that's available now versus what might be available 20 years from now. So, to get a good idea of whether or not the community supports this, I launched a project at the beginning of the year using the Community Navigators program and the Community Navigators program is a co-created program with trusted community representatives. The Community Navigators are not King County employees, they are representatives of their communities to provide culturally responsive information.

This program started during the pandemic in order to provide accurate information about the spread of disease, how to prevent that and also provide accurate information about vaccines. Since then, the Community Navigator program has worked in a variety of public health programs and they were available for bringing this information about septic system to sewer conversion and we are in the middle of that project right now and gathering information from communities primarily in South King County.

Jae: That's really great to hear that a program created during the pandemic to further engage community is now being utilized in different ways, but still in the interest of environmental public health.

What are the plans once you have gathered this information for the future and also some of the things that you've learned so far?

Corrina: Once we get the results in, you know depending on what the overall community response is, we have a couple of options. Three main things for the future include continuing communication with the communities, just letting them know that in urban areas sewer is coming and helping prepare them for that eventuality. The second piece is also communicating with the sewer utility districts in terms of available funding to construct these projects and allowing them time and potentially providing support for, you know, make sure they have capacity for additional customers and managing the construction project of extending the sewer. The third piece is, if communities are not yet ready for sewer conversion, is to provide them the resources to maintain their septic systems for as long as possible until sewer is available, or they potentially have no other options to replace a septic system because their lot simply does not have room.

Jae: Corrina, you mentioned there are two pilot programs that are currently being overseen by the Equitable Wastewater Futures program. I would like to know a little bit more about the cost of this program and just what kind of insights are being gained.

Corrina: Like I said, there are two pilot projects and, between the two projects, they hope to connect up to 24 properties. Each project is being funded \$1 million, so a total of \$2 million for up to 24 homes. So, you know I mentioned before that the, kind of the average cost to connect to sewer, can be around \$100,000 and currently this is the responsibility of the property owner which is a huge burden.

And we don't anticipate that, of the 37,000 septic systems in King County, that all of those property owners are going to be able to afford \$100,000. In fact, you know, so far, we are very aware that many property owners can't really afford that \$100,000. So, the goal of these two pilot projects are to demonstrate that these projects can be successful and we also want to make the community aware.

And the by the community, I really mean the urban communities of King County, aware that this is an expensive proposition.

Jae: So, Corrina, wow, you said that on average it costs about \$100,000 to connect to sewer; that is a lot of money. What are some of the considerations that are being taken when thinking about the community members and property owners that are having to make this decision?

Corrina: Great question. And I do want to talk about that \$100,000 because these are typically the situations that we are aware of. There probably are sewer connections that are less expensive than that and homeowners are connecting without our knowledge, which is absolutely fine. But for those that do cost \$100,000, or more, and you know the property owner has to consider not only the cost of connection, but there is going to be a monthly sewer bill, which can really vary depending on where a person lives in King County. So, one of the things that we are very concerned about in this proactive planning for urban infrastructure is, you know, the possibility of communities being displaced because maybe they can't afford \$100,000. Or if one of these pilot projects is available to their community, you know, what about that additional household bill that is going to come every month? Can all the households in these areas afford that? And what are we going to take into consideration if the answer is a resounding "no, this community cannot handle the extra expense of a monthly sewer bill."

Jae: It sounds like that's where the input that's being gathered by the Community Navigators is going to be absolutely invaluable.

Corrina: Yes, that and any additional outreach that we have after the Community Navigators project ends. You know, we really want to build on the work that this program has done.

Jae: I'm wondering how this work relates to the larger landscape that we see throughout the state of Washington and even across the country. Julie, can you speak to that a little bit?

Julie: Thanks, Jae. You know, I think this comes back in some ways, right, Corrina was talking about folks needing to afford these sewer bills. And I think when we take a few steps back, there's a question there about why do some urban areas have sewer that individual homeowners weren't necessarily paying for, and others are in situations where they don't have sewer, where homeowners are being asked to individually pay for these connections. And there's different pieces to that puzzle, but I think an important one is the landscape of how racism plays out in policy decisions and funding in the history and present of this country, right.

So, in the past, as sewers were being expanded throughout urban areas, that was largely funded by federal funding, and to a certain extent, you know, grants, and then also loans to state and local governments to be able to put that infrastructure in. They weren't going to each household and charging them \$100,000, right. There have been expansions based on, sort of, economic incentives where developers feel that there is economic value to develop infrastructure in communities, right?

And so, if developers are like "oh, I can make money here!" then they build infrastructure to enable them to put businesses and resources in that community that they then economically benefit from.

But that's a cycle, right?

When communities have been under-invested in because of racism, then developers aren't then investing in them in meaningful ways to build the infrastructure to support those communities, right? And so, in some places developers are extending sewers, but that is not happening in low-income communities of color, in urban areas, because the economic dynamics of our country are what they are.

So, I think there's a broader picture here of why are we in this situation that's really, really important.

And part of the reason that we created this program and that we're focusing on this project is that, if the intent of King County is to address racial equity and for us in environmental health and in public health to work on racism, that is a public health crisis that has been identified as such, right, then we need to be looking at the root causes and we need to be addressing the root causes. And so, part of the intent was to figure out how do we fund sewer in places where government has not in the past funded it, developers have not funded it? What is the opportunity to find funding mechanisms to pay for that so that is not the burden of individual homeowners?

And that's challenging, right, because we know, as Corrina was speaking to, when we invest in sewer infrastructure and communities, part of what keeps the communities affordable is that septic systems need that extra space that we were talking about earlier, right. So, when you have land that is reserved for a drain field, even if it's a small parcel, it means that the house has to be small. If you take that away, all of a sudden you can fill up that whole parcel with a bigger house, right. And so, moving from septic to sewer means that you can have bigger houses on lots and that opens up the potential for gentrification and changing property values in communities where folks can no longer afford to live in their neighborhood. So, this is one of these issues that is really complex, right, and layered with lots of aspects of historic inequity and racism.

And so, part of, you know, the opportunity with this program is, as Corrina talked about, working with the community, working with other parts of the county and other local cities and all of the partners in the mix to figure out what are our options and how do we do this in in the ways that best support community and try to find paths forward with that that protect public health, because it is also not protecting community's health when there is raw sewage in people's backyards, right, or in their streams. So, we are trying to grapple with all these pieces.

Jae: I really appreciate that call out to how changing from septic to sewer can also change the way land is used and specifically mentioning gentrification. And I wanted to know, Julie, do you feel that the Equitable Wastewater Futures Program could serve as a leader and kind of a guide for other parts of the country who are facing the same issue?

Julie: You know, Jae, that is really my hope. And you know, I know it will not be perfect, right, because all of this is figuring out how to operate in the systems that we exist in. But it felt like, you know, we have this opportunity to see this problem and to try to create meaningful



solutions with communities to try to tackle this public health issue, and it's such an important one. We're talking about thousands of people and the impact to resources that are shared by millions of people.

Something that you spoke to is the broader picture, and sanitation inequity is not unique to King County or Washington State, right? And, one book that had a really big impact on me was a book called *Waste* by Catherine Coleman Flowers. And what she speaks to in that book is essentially the history and present of sanitation injustice. Specifically, she talks about Alabama and where she's from and the long history of inadequate wastewater treatment, in that case in poor Black communities, but in poor communities of color around the country as well, where there's been an underinvestment and a disinvestment in wastewater treatment and people living with raw sewage and the impact of that really directly on people's health and well-being and economic circumstances in so many ways.

In the case that she describes, she's talking about essentially communities not having access to wastewater treatment, to centralized treatment as well as access to septic technology that can work in where they live because the soils are hard and the water doesn't absorb into the soils. And so, so many people are living with raw wastewater in their backyards and around their homes that their children are playing in. And that is happening around the country and continues to be a tremendously significant issue. So, I think sanitation injustice is a part of the broader landscape of infrastructure inequity that we see in this country and all of the impacts that that flow from that.

Jae: Thank you both so much for taking the time to talk with me about Equitable Wastewater Futures and the broader landscape. I feel like I've learned a lot and expanded my perspective. So, thank you both so much.

Julie: Thank you.

Corrina: Thank you. It was a pleasure talking about this.

Julie: Appreciate the opportunity.

Jae: I also want to thank our listeners for joining us, hopefully we filled in some gaps for you.

A couple of resources that we have if you want to learn more about the Equitable Wastewater Futures Program, we will link the story map in the show notes and we will also include a link to *Waste* by Catherine Coleman Flowers, which Julie mentioned. And as always, there's plenty of information on the Public Health Seattle King County Environmental Health Services website.

[MUSIC RESUMES FOR OUTRO, Going Somewhere by Aves]

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Jae: Bridging the Gap is a project by the Environmental Health Services Division of Public Health Seattle and King County. This episode was hosted by me, Jae Williams, and produced and edited by myself and Ben Lennon. Special thanks to Corrina Marote and Julie Horowitz for sharing their everyday expertise. Thank you to Keith Seinfeld for lending invaluable insight and knowledge about creating a podcast. And finally, thank you to Carina Elsenboss and Jsani Henry, who both played a part in making this podcast happen. This project is funded through Foundational Public Health Services from the Washington State Legislature. You can learn more about FPHS on the Department of Health website, which is linked in the show notes.

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