

# Podcast Transcript

## 5 key questions about septic

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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 speaking with an Educator Consultant to cover five key questions about septic systems. Maybe you're familiar with septic systems, maybe you're not. Maybe you have one, but you don't know much about it. Or maybe you're just curious as to how septic systems are relevant to environmental public health. Whichever category you fall into, we are here to bridge the gap.

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Jae: Welcome to the show Eunbi, so glad we get to have this conversation. Will you start us off by introducing yourself and telling us a little bit about how you started doing this work?

Eunbi Lee (guest): Absolutely. Nice to meet you, everybody. My name is Eunbi Lee and I'm an Educator Consultant, a Community Engagement and Partnership Coordinator at Environmental Health Division at Public Health Seattle and King County. How I came to this place is with my passion for clean water and equitable access to the natural environment or resources. I started my career as a teacher, and I understood how much the natural environment can impact the children's quality of life, and that led me to study a little bit further about clean water. For my master's program, I ended up studying the relationship between the use of our well water and its impact on the groundwater. So, I thought that septic system usage and how well we can take care of it has a positive impact on the drinking water or groundwater in our life, so I wanted to continue working on that. So, that's where I am at.

Jae: Eunbi, actually, could you take a couple of moments to tell us more about your job and kind of what an average day looks like for you?

Eunbi: It's all about community actually. I spend a lot of time emailing, phone calling or connecting with people through Zoom meetings or actually being on the road to connect with and meeting with new people in the community that we serve. I'm not talking about the entire King County all at once, but region by region, we try to reach King County residents or community-centered places or gathering places so that we can effectively share the information that we have; because, as a public servant, I believe that the information can be power and it is our role to make sure that information or power can be equitably distributed. So, we try very

hard to connect with the people to share some of our assistance programs or any technical assistance that we can provide. That's what I do and how my day looks like.

Jae: That's great, Eunbi. It really sounds like you have a heart for community and the county is definitely benefiting from that, so thank you. And if you're ready, let's dive into our five key questions about septic.

Eunbi: Of course!

Jae: Question #1 - What are some of the major differences between septic and sewer and how would you be able to tell which system you're on?

Eunbi: The septic system, it is a decentralized or mini wastewater treatment system in your backyard. Septic system takes all of the wastewater that is generated from your household including grey water from your sink, shower or washing machine, to all the black water from your toilet which is including everything that you flush. With the septic system taking all of the wastewater, it means that every wastewater is collected to one pipe and to one system, and that is where the wastewater is treated before it meets any other environment outside the septic system components.

There are a couple of ways that you can tell if you're on septic system or sewer system. One is that if you are paying for the monthly bill to the sewer district, that means that you're not on septic system but on sewer system. If you don't pay for that monthly, then you're likely to be connected with your septic system and it is in your backyard. The other way to know, plus what type of system that you might have, is to use our search engine which is [kingcounty.gov/septicrecords](http://kingcounty.gov/septicrecords) and it is going to show whether you are on septic system or sewer system and what type of system that you have. And you can also find all the history of maintenance and repairs that might be involved in the septic system that is in your property. A lot of times people will try to use this search engine to understand when they are due for their routine maintenances or when they need to take care of it more proactively, especially when they're about to sell their properties. This search engine can tell you a lot about stories of your septic system.

Jae: Thank you for that Eunbi. That's really helpful, I bet people will be curious to know about the database as well.

Question #2 - How can people set themselves up for success with their septic systems?

Eunbi: There are a few tips that homeowners, or property owners, can do to make sure that their septic system is working properly and they don't have to worry about any failures or any headaches. First, is septic maintenance and second, is pumping and third, is making sure that you are aware of where the septic systems are as well as how to take care of it.

Just to dive a little bit deeper into what the inspection or pumping means; the inspection means that certified maintainers come out to your property to see all the components of your septic system. This includes literally all the septic components that you have and they can go through what is having some problems, what is the issue; you might have heard very noisy sound in the middle of the night and you don't know what the reason is because the septic system is under the ground. So, inspection can tell you a lot of the reasoning behind how the septic system is doing. And, plus it can tell you when the next pumping is required, as well as what kind of septic repair that might be needed. So, if you do the inspection, then it can help you to do little bit of repair here and there so that it doesn't lead into too much of a failure and that you have to do a major repair or replacement of the septic system. We do recommend it because it is a bargain compared to the replacement or major repair which can cost a lot of money.

The second piece of maintenance activity is pumping, and regularly pumping the septic system really helps boost and improve the functionality of the septic system. In septic system, there are two parts, one is septic tank part where all the wastewater generated from your household is collected, and a lot of times there is not just water or liquid part but also the solid part that sinks on the bottom, and that solid part should be pumped regularly so that it helps the wastewater to flow into the next chamber of the drain field. This pumping should be happening every three to five years depending on the water usage or the type of the system that you have. But it should be something that people remember to do regularly so that their wastewater can be contained in their tank safely.

Lastly, there is a component called drain field in the septic system and that is kind of a last part of all the system where the liquid portion of the wastewater from the tank is now dispersed through small holes of the drain field into the soil. This component is really important because wastewater can now go into the soil and be finally treated completely before meeting with the groundwater. But, a lot of times drain field can be susceptible to breakage or can be damaged very easily. Even dogs can chew up some drip lines and then it can damage the whole drain field or driving over it, planting over are not recommended because it can literally just break the components and it will be very, very expensive if you need to replace it. Tree roots are not recommended as well because they are going to seek for water, so their roots are going to come to the drain field area. So, if you're planting anything over the drain field, only grass or shallow-rooted native plants are recommended. Those are key maintenance parts that can help prevent the fail.

Jae: Thank you, Eunbi. I really appreciated that, I also like how you differentiated between the two main parts of the septic system; between the pipes and everything that goes into the tank and then everything that's draining out and how the drain field is still an essential component of the septic system. That's good to know, I didn't know that there were pieces of the septic system that could be accessible by your dog. You know, Fido's out here costing us lots of money. So, we have to be very careful of that.

Question #3 - What are some everyday practices people can use to protect themselves against septic failure?

Eunbi: Septic system maintenance is just like car maintenance. So, you take your car to for an oil change every however many months. So, it's just like that. You just need to keep track of the septic maintenance and then you can do that the next year, same activity, and it is going to help lengthen the longevity of the septic system. That is the really important key to understand about the septic system.

The other piece that I would really like to highlight for the everyday practices that people can do is to watch what you put into your drain, meaning watch what you are flushing, watch what you are putting in your kitchen sink or bathroom sink, or watch what you are putting directly into the septic tank as well. For instance, into the toilet, it is important not to put anything but just the water, toilet paper and human waste. So, a lot of times people might ask "can I put pet waste into it?" We say "no" because it is going to overload the system, as the system is designed for however many bedrooms that are set up. So, that means this system is only good for two bedrooms. But then, if we keep adding cat poop, then it is going to definitely add up to the solid level of the septic tank.

The other part is when you are thinking about the sink, you may be using some cleaning products, of course for the toilet as well. Cleaning products that are made of harsh chemicals; the chemical is really not recommended for especially septic owners because, in septic tank, there is a lot of microorganisms that breakdown the human waste and toilet paper and we rely on them to pre-treat the wastewater sent to the drain field to be dispersed to the ground. So, we should not kill them and let them thrive by not putting chemicals. Instead of chemicals, we can always use vinegar, hot water or baking soda to clean some of those household items, that is more recommended than chemicals.

The last part about some substances that we put into the tank directly is what is called septic additives; it is marketed or known to help with the functionality of the septic system, but we do not find any scientific evidence that it is actually helping. We are not recommending the use of septic additives because there could be unknown impacts of the septic additives into these microorganisms that are working hard in the septic tank.

Just like being a good water steward or clean water steward, conserve your water and know when to use water. If you do shower, while you are running the dishwasher, while you are running the washer and while you're also running other components that use water, then it can really overload the system and can break some of the components in the septic system. So, we make sure that people do the daily practices of conserving the water usage so that it doesn't overload the system. Those are some critical points that people can follow.

Jae: That's all really good to know, Eunbi, thank you so much. And I also feel like that would be helpful for people who maybe aren't on septic and are trying to move away from using harsh

chemicals in the household, other things like vinegar, baking soda can be just as effective and kinder to the system, so that's good to know.

Question #4 - What do you wish more people knew about this issue?

Eunbi: I wish people to know that it doesn't end when you flush. You flush it, but it is another starting of this journey of your poop and waste to go down through your septic system into the drain field and being breaking down by all the soil and good stuff before meeting and joining the local waterways and the groundwater. I think it is really important that to know that septic system is a part of a greater cycle of the environment, especially the local environmental setting where you interact every day. And it is also a way to protect that environment from any harmful fecal pollution that could break out if there is not healthy working septic system in place. That is what I would like to emphasize to the septic system owners, and I would also like to compliment on everybody's effort in making sure their septic system is healthy and working well because it is also protecting the community health as well.

Jae: That's definitely important to remember that just because you flush or put something down the drain in your own home, it does connect to a larger system whether you're on septic or sewer. So, we have to keep each other in mind.

Question #5 - Why are septic systems and proper maintenance important to public health?

Eunbi: It's very important. In a smaller scale, a lot of times septic owners have their private wells and all the septic water that went through the treatment through the soil will meet the groundwater that they drink. It is the for the health of your family as well as the community. So, it is really important in that mini scale to protect the clean water and making sure that the wastewater is treated well.

A little bit in the greater side of that, as I mentioned, it goes and meets the groundwater, which again travels to greater local waterways, like streams or ponds or lakes, and also it goes ultimately to Puget Sound. Lots of times, we do see some issues with the stream flow or the freshwater and rivers or streams and that problem is not completely resolved when they arrive at the Puget Sound. In that case, some of the fecal pollution that might be included because of the wastewater that was generated from the septic system can travel through all that long ways of water in the local setting and might be impacting some of our recreational activities in Puget Sound. We really want to make sure that does not happen. Septic is just one of the pollution sources for the fecal pollution in Puget Sound, but we are hoping that this is more of a community effort for the greater good for everyone.

Jae: Bringing it back to the greater good, I appreciate that a lot. Hopefully, we can put something on people's minds where they understand that we're all connected.

Thank you, Eunbi, so much for joining us and going over those five key questions about septic systems. If people want to know more, where should they look?

Eunbi: Please feel free to call us or visit our website. You can call us at 206-477-8050 and that's our office for the Onsite Sewage System, or OSS, at Public Health Seattle and King County. And you can visit our website [www.kingcounty.gov/OSS](http://www.kingcounty.gov/OSS). We will have a lot of information available for you and for sharing as well.

If you have any technical issues or financial issues that you would like to resolve to maintain your septic systems, please utilize our phone number or the website to make sure that you we can serve you for the best for best and practical ways. I would also like to mention that in our website you will be able to find the list of certified maintainers or pumpers or even septic system designers and installers in case you need a repair, replacement or maintenance activities. So, feel free to look around and connect with some of the industry professionals that we certify.

Lastly, we have a great Homeowner's Manual where all the homeowners with septic system would be recommended to know about their septic systems and how to take care of it. So, feel free to visit and download those materials for your use. And would love to always connect with you in terms of any questions that you have about your septic systems.

Jae: Thank you so much for that Eunbi, and we will have all of those resources linked in the show notes, including the database mentioned at the beginning of the episode where you can check the records for your septic system.

I want to take a moment to thank our listeners for joining us, hopefully we filled in some gaps for you.

[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 Eunbi Lee for sharing her 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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