

Lacey Lively:

Good morning. It's Lacey Lively from the city of College Station. And today my guest is Jennifer Nations, water resource coordinator for the city.

Jennifer Nations:

Hello, hello.

Lacey Lively:

Hi, thanks for coming in. So I hear there's a special week coming up?

Jennifer Nations:

Yes, it's source water protection week. It's an annual week every ... it's an annual week every year.

Lacey Lively:

But I mean, at the same time every year.

Jennifer Nations:

Yeah. It's usually in September, it follows pollution prevention week, which is good.

Lacey Lively:

Okay. I feel a little like, what does this mean?

Jennifer Nations:

Yeah. So why do we care about source water? So it's good that it follows on the heels of pollution prevention week, because pollution prevention is also a big part of keeping your source water clean. So source water protection week is it's a week that is marked by the American Water Works Association.

And when we protect our drinking water sources from contamination, then it's much easier to just keep things out of the source versus trying to take them out at the treatment plant later. And we are on groundwater here, but I saw a great graphic on Reddit a couple of weeks ago with this, I forget what the name of the water source was, but it was this big poster with a cutout in the shape of a glass. And then the poster was in front of a lake and it said, "Enjoy this glass of your drinking water," which was the lake. So that was a really good visual.

Lacey Lively:

And we're groundwater?

Jennifer Nations:

Yeah. So we can't do that. And our aquifer is 3000 feet deep, so we can't really do any good visual stuff like that.

Lacey Lively:

Nope. But it's a good plug because I know out of our planning and development services department, they do a lot of storm water awareness and pollution. And what does that mean for you at home? It's

meaning to clean up after your pet, means to be careful with your fertilizer, pesticide, things like that. Because what happens is when it rains that will wash whatever's in your yard or on your driveway out into our storm drains and those all go out into creeks, rivers, lakes, wherever.

Jennifer Nations:

Yeah, exactly. And so we're all part of ... I always say we all live downstream from someone and so that's all going to flow into our creeks and then that's going to go into the Brazos River and The Navasota River and then that's going to become somebody else's drinking water downstream. So we want to keep the stuff from getting into the stream in the first place.

Lacey Lively:

Was there anything else that I'm I left out to be careful of?

Jennifer Nations:

Let's see. We talked about the pesticides and the pet wastes and the fertilizers. And just over irrigation, you don't want to have that, because then you're going to have runoff. And then so we got pollution prevention week last week, source water protection week this week.

And then this is also a good time to, even though I'm not coordinating it anymore, it's also a good time to remind people of the household hazardous waste collection coming up.

Lacey Lively:

Oh yes.

Jennifer Nations:

In the past we've sent letters to people who live in the area surrounding our well field. We'll send them letters or flyers letting them know about that collection, because that's the only safe and legal way to get rid of things like motor oil or gasoline or something like that. And we don't want to pour it onto the ground.

Lacey Lively:

And medication too.

Jennifer Nations:

Medication.

Lacey Lively:

You don't flush medication down the toilet. I think that's October 22nd.

Jennifer Nations:

Yeah.

Lacey Lively:

7 a.m.-2 p.m. October 22nd. And that is free for any Brazos Valley resident. You don't even have to get out of your car. You load up your car with any household hazardous waste and they will take it out of your car for you and then you drive off. I know you can go to twinoakslandfill.com.

Jennifer Nations:

It's twinoakslandfill.com/HHW. Yes.

Lacey Lively:

Yes. Thank you.

Jennifer Nations:

So keep all that stuff out. So then that's going to help our wastewater treatment plant also, because we don't want to have things like gasoline and harsh chemicals. The wastewater treatment processes all, how do we describe it? Years ago we described it as happy microbes and some air freshener. So we want to keep those microbes happy.

Lacey Lively:

So they can clean up the stuff.

Jennifer Nations:

Exactly.

Lacey Lively:

Do their job.

Jennifer Nations:

Yeah.

Lacey Lively:

And I also know there's a lot of places around town, if you change your own oil or automotive fluids yourself, you can go and dispose of them properly. You don't have to just wait. So the house hazardous waste is usually April and October, twice a year. With that, I talked about flushing things down the toilet. So might be a good plug of reminder of folks.

Jennifer Nations:

Exactly, what not to flush.

Lacey Lively:

Exactly.

Jennifer Nations:

We had our wastewater operators sent me a picture. It's a little bit hard to tell, but there was looking down into a manhole and then you can see the manhole is where you can look down. And the wastewater pipe is not covered. It's open on that part and you can see the wastewater flowing through.

So there was this big mass of paper, towels and grease and they had to go and again, the people were like, "We don't know how it happened." And I think it was a restaurant or something. And we were like, "Well, I don't know."

Lacey Lively:

But it went down the sink or the toilet.

Jennifer Nations:

It went down the sink or the drain or something like that. And then it gets solidified and it backs up. And so that's another impact to water quality, because if it's backing up, then we have that going on the street or going into the creeks and then there's the impact to wildlife. And it also smells. And so we just, yeah.

Lacey Lively:

It's grody.

Jennifer Nations:

It's grody.

Lacey Lively:

And it's expensive.

Jennifer Nations:

Yeah. All of these things connect together. Another thing I learned about was when I was looking up some information about just about the Carrizo-Wilcox aquifer and how it is different. It's kind of cool. It goes all the way from the Louisiana border down to the border with Mexico, it stretches all across Texas.

And then in our area it's found in Northwest Brazos County and Robertson County, but there's other parts of the aquifer where there's a lot of, they called it thickitization, where there's a lot of brush growing maybe non-native brush and it's actually preventing rainfall from soaking into the ground and recharging the aquifer. So there's land management and habitat, vegetation management, things that you can do that also improve water quality and quantity.

Lacey Lively:

And then in the aquifer, you just mentioned, that's where we get our water.

Jennifer Nations:

All of our drinking water comes from the ... it's like a, imagine a big layer cake. And so it's the Carrizo-Wilcox aquifer group. And then we've got the Simsboro Sand, which is the 3000 feet deep one. That's where our water comes out so hot. It's 118 degrees Fahrenheit when it comes out and it's in the confined portion, so it tends to be soft. So this time of year people are moving here and they're like, "Why can't I get the soap out of my hair? Why does the water feel so slimy?" It's because it's so soft and that's a characteristic of our source water.

And then in other parts of the state, the aquifer is unconfined. That means that you can just drill down and get to the water without ... you could just dig and then get to the water, versus we have to punch

through that confining layer. And so in those areas, the water is hard and then it has fewer dissolved solids in it. So it's a totally different quality just based on where it is.

Lacey Lively:

I'm glad you brought that up, because usually we get a lot of tweets about that.

Jennifer Nations:

Yeah, we do. And it's the things that people find odd or that I would say objectionable to some people, although they're completely fine, but the sodium in the water, the softness, the way it feels, that's all characteristic of our source water. And the aquifers in central Texas are different. And so they're limestone aquifers. This one is more of a sand aquifer. So it has such a huge impact on water chemistry and taste and feel and everything.

Lacey Lively:

But you surpass the water quality drinking report.

Jennifer Nations:

Absolutely.

Lacey Lively:

It is safe.

Jennifer Nations:

Yeah. I mean, we pump it out of the ground. We add some chlorine for disinfection and we're off to the races, which is great. We don't have to do ... if we were getting our water from the Brazos River or Lake Conroe or something like that, we'd have to put it through several steps and we'd have to add chemicals to it to get all of the floating leaves and mud and stuff that you see when you're in a lake, we'd have to get all that to come out. And sometimes lakes will turn over, where the water on the bottom goes to the top and then it can smell and taste funny. And so ground water is great.

Lacey Lively:

I was like, that's good. I love all your water knowledge. That's why you're known as the water chick.

Jennifer Nations:

That's right. Yes.

Lacey Lively:

Yes. Is there anything else you wanted to add and?

Jennifer Nations:

Let's see, we talked about, yeah, the source water protection. I guess I would just add that TCEQ does an assessment of our source water and then they use what they discover in that to determine the frequency of how often we sample our drinking water and what it's sampled for. So it's all based on keeping our water clean.

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Lacey Lively:

Clean and safe.

Jennifer Nations:

Clean and safe. Yep.

Lacey Lively:

Perfect. Well, thank you so much for coming in this morning.

Jennifer Nations:

You're welcome.

Lacey Lively:

Thanks. And with that, that's Stuff You Don't Usually See.