Well 15 Public Information Meeting – Discussion Notes

Thursday, June 30
East Madison Community Center
Attendees: 28

Madison Water Utility

DISCUSSION NOTES:

Q: What are the effects of PFAS on the human body?

A: We are still studying this emerging contaminant. We've been following research from University of Michigan and Rhode Island University as they learn more information about PFAS, including potential impacts to the human body. We do not know yet if PFAS exposure affects the COVID-19 vaccine.

Q: There's a recent story about using sulfite, iodine, and ultra-violet light (UV); three years ago, we sat here and talked about putting a carbon filter at Well 15; does any of this work?

A: As far as treatment technologies, there are going to be 3 types: (1) absorbent materials (granulated activated carbon) that uses ion exchange resin to concentrate the compounds on the medium, (2) reverse osmosis used in membranes and pressure, force clean water through tiny pores in the membranes and then you concentrate PFAS in that brine or wastewater – very energy intensive but very effective at removing PFAS, (3) using advanced oxygenated processes which uses high energy to break the bonds between atoms that make up the PFAS, the technologies are only effective once you concentrate the PFAS. Not as effective in these trace levels we see in drinking water; the best way is to concentrate the compounds; the UV or high energy to breakdown PFAS is not advanced enough to be effective at Well 15.

Q: are we going to be shipping the materials to someone else to make it there problem?

A: The best practice now is to concentrate the PFAS and then ship it for disposal; the concentrated materials will likely be disposed of sustainably, if that is the disposal option chosen for the facility.

Q: Well 15 is actually in Reindahl Park; City allowed a drinking water well to be built in what is supposed to be park and recreation land; when you all decided to route the sewer pipe through the park, MMSD tested the ground water [in 2019]; we asked [Al Larson] if we could test the soil borings for PFAS and there was just silence; no one wanted to pay for this initiative and we were told it was very complicated; we ask that the water be treated and filtered before it is sent to Starkweather Creek east branch – will this be done?

A: That is a good question that I unfortunately do not have an answer to right now. It is out of this project's scope; out of our purview;

A: (Deputy Mayor, Christie Baumel): I have noted this and will look into it.

Q: Well 15 has highest concentration; do any of the other wells meet the HAL that recently came out?

A: Keep in mind that our annual drinking water quality report is available in English and Spanish; the last page of the report shows all of our testing results from 2021. We also participate in the Wisconsin DNR's volunteering monitoring program – these results are already on our website (cityofmadison.com/water). We have been proactively testing our water for PFAS since 2017 and all results from current to past testing are available on our website.

To answer your question directly, we do have 15-16 wells that at one point had detections of PFOA and PFOS – the two most-studied types of PFAS – that have shown detections above those HALs levels EPA recently released.

We have to start somewhere; Well 15 is our worst case in the city; this is good case to figure out what treatment is most effective.

Q: Well 15 is the worst well in Madison; do you know how long it was contaminated before we discovered?

A: There is no way for us to know this. This is not something we would know without testing; our testing started in 2012 and then tested in 2015 and there were no detections at that time; limits were also much higher at that time based on capabilities of what labs could perform at that time.

Q: What drinking water well is currently providing water to use in this area [well 15 service area]?

A: Well 11, 29, and principally 7 and 13.

Q: I understand we cannot necessarily stop the flow of PFAS from the National Guard airbase and airport, but I'd like to know if when it is repaired, will it be maintained in a way that prevents further PFAS contamination?

A: Yes; definitively; we will do everything in our power to make sure well 15 produces the highest quality drinking water with the lowest levels of PFAS. The City, County, and US Military are working through this process and unfortunately it is one that takes some time but the process is moving forward.

Q: Why can't the airport and National Guard stop using PFAS?

A: There are a number of companies that have taken the jeopardy of not using PFAS in their products; the worst culprit is fast food packaging; a number of companies [including ANG] have stopped using this;

Q: Any methods of detecting and removing PFAS from the human body that you know of yet?

A: In 2015 there was a study of the human body in regards to PFAS; the study concluded that 97% of people have some PFAS present in their bodies; we have been exposed to this since the 1950s. PFAS is everywhere, not just in drinking water.

Comment: When you state "non-detections", it is meaningless unless you state what the detection limit is.

Response: All detections limits are available on our website; they are also present in the water quality report in the 3rd column of the report; we've been reporting every current detection limit.

Comment: The website talks about PFAS are "believed" to be negatively impactful; that should be clearer and you all should be more transparent.

Comment: In depth testing for broad spectrum – tested 34 different ones but there are 9,000, but unless the utility does total organic flooring to know whether the ones we test actually account for the total, it is irrelevant.

Comment: The water utility meets all legal and regulatory standards. A classic example of how regulations are often many years behind the science; it's been clear for a number of years that the 70 ppt is way too lenient – grossly high.

Q: Understanding the airport is the primary source for PFAS, if they stopped using it today, how long will it take the contamination move through Madison's groundwater?

A: The National Guard switched from PFAS-containing foam, similar to the airport – they are using a shorter chain PFAS compound and it is thought to be less harmful; the PFAS is captured in vessels and are not introduced into the larger community; Madison Fire Department does not use the foam that contains PFAS; unfortunately there is a thing called "military spec", which requires them to use PFAS fire-fighting foam, but will only be released into environment if there is an actual emergency that requires it's use.

They are defined as "forever chemicals" because they have strong bonds and that means they do not break down naturally; it will take a long time to move through the groundwater.

Q: I am wondering if there is anything that can be done to hold the utility accountable? Is there a strategy where someone that looks like our community members can be part of the process, such as a community liaison?

A: Yes; we are striving to keep the community up to date every step of the process; while there are traditional public meetings, there are a number of ways to get involved and to engage the community; we will be planning more of an informal, community gathering to discuss this, likely in August. Please stay tuned.

Comment: We are really lucky that this federal infrastructure money was released.

Q: With multiple players at the table, who is actually responsible for stopping, testing, and mitigating PFAS in this area?

A: The airport is owned by Dane County, the Air National Guard owns the military side of land, and all, including the City, is responsible for cleanup and mitigation. PFAS is still something we are learning more about; we are all coordinating and collaborating. The Air National Guard's national remediation process is slower, however, it is in progress. The airport is trying to do work to their sewer pipes; on both sides of the property they are testing a microbe that may be able to breakdown PFAS.

Q: Is there anything individuals can do to protect themselves in the interim, such as Britta pitchers and other home filtration devices?

A: All of the current filters can only remove PFAS down to the previous HAL (prior to May 2022). It will take time before these manufactures and independent companies can produce a filter that can effectively remove contaminants down to the new HAL that was announced two weeks ago. There are over 100 different models, each is thought to reduce PFAS from 1,500 ppt to 70 ppt (previous HAL).

Q: Is there a responsibility for Madison Water Utility to provide filtration devices to ratepayers, especially ones in this area?

A: Your concern is heard loud and clear; until a Maximum Contaminant Load (MCL) is actually finalized, there is no responsibility for us to provide filters to address the HALs.

Q: PFAS was discovered in 2017, why did it take 2 years to shut down well 15?

A: Up until two weeks ago, the debate contemplated the MCL being 20 ppt or 70 ppt. Well 15 doesn't even rise to the level of 20 ppt. We took the well offline due to community concern and advocacy, which is what helped us make that decision to shut it off and keep it off until treatment was implemented. We're making decisions based on requirements and regulations, and there was no standard, so we're solely guided by the best information available.

Q: The HALs are much lower than levels that are typically found in fish tissues in our water bodies, correct?

A: The DNR has come out with their guidance and everyone might not accept where they landed with the guidance, but they do account for species that should not be eaten; they have come out with specific fish consumption advisories. Please visit Public Health Madison-Dane County's website for this guidance.

Q: Do you use chloramine to treat water?

A: No; the utility strictly uses chlorine; the chlorine we use is straight molecular chlorine and it is an oxidizing agent; chloramine is chlorine combined with ammonium to create a disinfecting agent if you have high organic content in your water – it disinfects when interacting with organics; our water is really clean and clear of organics; our disinfecting bi-products are low, some of the lowest in the country; they help when controlling for lead, but we have removed all lead from our community so that is not an issue.