

Minnesota 3M PFAS Settlement

Notes for Combined Working Group Meeting

Wednesday, February 21, 2024

9 a.m. – 11 a.m.

Hybrid Teams and in-person meeting

Combined working group members in attendance

- Chris Volkers
- Clark Schroeder
- Clint Gridley
- Dave Schulenberg
- David Brummel
- Jeff Dionisopoulos
- Jeff Holtz
- Jessica Stolle
- John Buelow
- Karie Blomquist
- Kirk Koudelka
- Laurie Elliott
- Liz Kaufenberg
- Mark Jenkins
- Mary Van Milligen
- Melissa Kuskie
- Mike Madigan
- Monica Stiglich
- Paul Simonsen
- Ron Moore
- Stephanie Souter
- Steve Johnson

Presenters

- Kirk Koudelka, Minnesota Pollution Control Agency (MPCA)
- Jess Richards, Minnesota Department of Natural Resources (DNR)
- Debra Fleischer, Abt Associates
- Kris Klos, Minnesota Department of Health (MDH)
- Lucas Martin, MDH
- Andri Dahlmeier, MPCA

Welcome

Debra Fleischer (Abt Associates) opened the work group meeting by walking through the hybrid meeting logistics, conducting roll call, and discussing the meeting agenda. Kirk Koudelka provided opening remarks. He explained that the meeting would cover an overview of the Minnesota Department of Health (MDH)'s recent updated Health Based Values (HBVs) and how these HBVs will impact Priority 1 and the Conceptual Plan.

Release of MDH HBVs

Kris Klos and Lucas Martin (MDH) presented an overview of the updated PFOA and PFOS HBVs. HBVs reflect the level of a contaminant that can be present in water and pose little or no health risk to a person drinking that water. MDH included sensitive populations and those who are highly exposed, such as infants and children, in the calculations to obtain the new HBVs.

MDH lowered the noncancer HBVs for PFOA and PFOS to 0.00024 parts per billion (ppb) and 0.0023 ppb, respectively, based on new human data from epidemiology studies. Previous HBVs were derived from animal studies, and toxicology and risk assessments in general have historically used laboratory animals to estimate risk from chemicals. Laboratory animals, specifically rodents, are usually more sensitive than humans to chemical effects. However, since PFAS bioaccumulate, humans are more sensitive than rodents to PFAS, so human studies

were used to derive HBVs where available. MDH also derived cancer HBVs for the first time for PFOA and PFOS. These are set at 0.0000079 ppb for PFOA and 0.0076 ppb for PFOS. These chemicals are now classified as likely to be carcinogenic based on new studies and data analysis. The PFOA HBV was derived from kidney and testicular cancer human studies, and the PFOS HBV was derived from liver cancer animal studies.

Kris showed a table of PFAS drinking water guidance updates between 2002 and 2024. In 2002, the HBVs were 7 micrograms per liter for PFOA and 1 microgram per liter for PFOS. There has been continuous re-evaluation of and updates to the HBVs between 2002 and 2024.

Kris explained the difference between noncancer and cancer HBVs. Noncancer values represent chemical concentrations that pose “little to no risk” to those drinking the water. Cancer values represent chemical concentrations at which one new case of cancer per every 100,000 people exposed is expected. The MDH derived cancer HBVs limit excess cancer risk to one case per every 100,000 people. Just like noncancer values, the cancer values do consider the fact that chemicals can be more potent for developing organisms, so adjustments are made for early life exposures. The MDH derived cancer HBV is a risk-based value, meaning that the higher the water concentration is, the higher a person’s risk is. Drinking water with a concentration over the HBV does not mean that a person will get cancer from that exposure, but that their risk of getting cancer from the contaminant increases.

Kris also noted that although many people in the East Metro have been exposed to PFAS through drinking water, there are other methods of PFAS exposure, such as through consumer products, some foods, and household dust. Non-water exposures combined usually have a higher level of contamination than drinking water. Consumer products are generally the biggest exposure pathway, and Minnesota is banning the sale of many products with PFAS in the next year.

Lucas presented an overview of how the new HBVs will impact public and private drinking water. MDH is meeting frequently to decide how to implement new guidance values and how these will impact public water systems. There is no timeline yet for issuing new advisories because MDH must make many decisions on how to evaluate results from testing and about what level of data is needed to say with confidence that there is a definite health risk. These decisions affect the entire state. MDH currently uses a quarterly running annual average to determine if the Health Risk Index (HRI) is over one. If the HRI is over one, MDH issues a health risk advisory. The HRI will be calculated differently with the new values, and use of the HRI may change – e.g., the HRI is no longer relevant for the new PFOA value since it is so low, and the new PFOS value has different health endpoints than the old value.

Lucas gave a refresher on EPA’s draft Maximum Contaminant Levels (MCLs). EPA plans to finalize the draft MCL rule for PFOA and PFOS in early 2024. MCLs are the national primary regulations for public water systems, and they factor in costs and benefits, feasibility, laboratory detection limitations, and other elements in addition to health risks and outcomes. MCLs are enforceable. Although the rule will be finalized in 2024, water system operators will have three years to meet the regulatory requirements of the new MCLs. Lucas clarified that HBVs are solely based on health effects, while MCLs are also based on what is measurable.

Lucas showed a table of the current and new HBVs, showing that they are much lower than the proposed MCLs. The main factor when setting an MCL is the practical quantification level, which is the lowest analyte concentration that can be reliably measured within specified limits of precision and accuracy during routine laboratory operating conditions. When setting MCLs, EPA needs to ensure there are enough laboratories with the needed capacity and availability.

Feedback

One work group member asked what health endpoints are. Lucas responded that health endpoints are the health effects that may be seen as a result of exposure to the contaminant.

One work group member asked how compliance agreements work, and if MDH sends them to EPA. Lucas explained that this process is defined in the Safe Drinking Water Act. When a MCL violation is issued, MDH works with the water system to come up with a timeline for a corrective action plan. This plan is always tailored directly to the water system. Kirk added that MDH is the point of contact for this process, not EPA.

One work group member asked if timelines for compliance with the new rule will be impacted by the industry supply of filters. Lucas responded that he did not know, but it could be possible. He noted that there are many different filter media and technologies now in use, so availability is greater. The work group member asked if water systems will only be able to use technologies approved by MDH, such as granular activated carbon (GAC). Lucas said that MDH only approves projects, not technologies. MDH evaluates whether there is sufficient performance testing data for the project. GAC projects are usually approved because there is a lot of performance testing data showing they are effective at removing PFAS.

One work group member asked if all the Minnesota HBVs are lower than all the EPA MCLs. Lucas said that all of them are lower than the EPA's MCLs, except for PFHxS. One work group member asked why Minnesota's hazard index is higher. Kris said that this is an older value that has not been updated recently. MDH has limited staff, and the last few years were spent evaluating the PFOA and PFOS HBVs. New data has come out recently for PFHxS, so MDH needs to look at this.

One work group member asked if Minnesota must develop HBVs that are equal to or lower than federal standards, or if the state can adopt a higher standard. Kris said that if the HBVs are put into rule, they need to be equal to or lower than federal standards. Lucas added that the state must enforce the MCL. One work group member asked for confirmation that only EPA's MCL is enforceable. Lucas confirmed this. If a water system's PFAS concentration is above the MCL, that is a violation. If it is above the HBV, MDH sends a health risk advisory letter. Water systems with exceedances above the HBV are recommended to take action to reduce exposure, but it is not required as it would be for an exceedance over the MCL.

One work group member asked if states could set a lower standard than the MCL. Lucas responded that some states have done it, but Minnesota does not have a program to set MCLs that are enforceable by rule. The work group member asked why Minnesota is not setting MCLs and Lucas said the legislature would have to pass a state rule allowing for this.

One work group member asked if EPA is going to lower the MCLs for PFOA and PFOS below 4 micrograms per liter. Lucas responded that this is unlikely.

One work group member asked why MDH is still considering how the updated values will be used for evaluating PFAS in public water systems. Lucas explained that because the HBVs are so low, there is a question about the level of data quality needed. MDH needs to be able to clearly evaluate the testing data and show that there is a clear health risk. Kirk added that the main concern is how certain water systems are about the numbers that they get. Reporting limits and detection limits have different levels of confidence, and MDH must decide which of those numbers should be used to compare to the HBV. Lucas added that the issue of evaluating the HRI with the new values also must be considered.

One work group member asked if it was possible that the quarterly running annual average methodology may change. Lucas said that MDH will still be basing health risk advisories on these averages, which follows the Safe

Drinking Water Act methodology for chronic contaminants. New health risk advisories must be based on more than one piece of data. For example, one well could have a PFOA concentration of one part per trillion (ppt) in one quarter, but then not have any detections for the next three quarters. MDH could take an average of the four quarters and get a value of 0.25 ppt, which is still above the PFOA HBV, but does this show there is consistent contamination in the water? Lucas said this kind of scenario is why MDH is still evaluating the process.

One work group member asked what the detection limit is using current testing technology. Lucas explained that there is a minimum method detection limit and a method reporting limit. The reporting limit is what the instrument is calibrated to, and data is very accurate at or above that level. The lowest detection limit is 0.1 ppt. Any value between the detection limit and the reporting limit must be qualified as an “estimated value.” The detection limit is higher than the new HBVs.

One work group member asked what the PFOA cancer HBV of 4 ppt means for a population of 100,000. Would there be 500 excess cancer deaths? Kris directed the work group member to contact MDH by phone (651-201-4899) or email (health.risk@state.mn.us) and a member of the staff can answer that question.

One work group member asked if the Co-Trustees require the quarterly running annual average for grants, or if a different testing schedule would be sufficient. Kirk said this would be case by case, and the Co-Trustees would look at the level of confidence, which becomes more difficult with the lower numbers. Once MDH makes their final decisions, MPCA and DNR will discuss. The work group member said they do not understand why there would have to be four tests spread out over a year instead of a condensed testing schedule. Lucas responded that tests cannot be done together in a short period of time because this would not account for different use periods and seasonal variability, both of which can lead to different amount of PFAS in wells. The Co-Trustees also must follow Safe Drinking Water Act regulations on how testing and violations are determined. A reliable and consistent exceedance of PFAS in a well must be shown. Advisories can be issued before there are four quarters of data, but not if there are inconsistent detections.

One work group member asked how exceedances will be determined once the MCLs are finalized. Lucas responded that this will be based on the average of the values for the most recent four quarters of testing.

One work group member asked why MDH decided to release the new HBVs now, when there are still unknowns concerning EPA’s MCLs. Kris responded that the agency needs to be transparent and feels that everyone should be aware of the lower values sooner rather than later.

One work group member commented that they are proud to be in a state that makes public health a priority. Kris noted that MDH can set values based only on health risks, which is unique to Minnesota. Other states usually must consider other aspects such as costs and feasibility.

Public comments and questions

One member of the public asked if rulemaking has started in Minnesota for Health Risk Limits (HRLs) for PFOA and PFOS, and if so, if there is an expected completion date for that rulemaking process. Kris responded that they are being reviewed by MDH lawyers and MDH hopes to have them completed within a year and a half. The HRLs need to be reviewed by various government offices, which adds time.

One member of the public asked if there are other known drinking water chemicals that are dangerous below detectable levels and, if so, how is MDH handling those chemicals. Kris responded that lead is one. Lucas added that the water systems are not regulated below detection limits and PFAS is the first contaminant MDH has run into where the HBV is below the detection limit.

Potential Impact of the MDH HBVs to the Conceptual Plan and Next Steps

Andri Dahlmeier (MPCA) presented an overview of the potential impact of the new HBVs on the Priority 1 Conceptual Plan, how the new values will impact the municipal systems and private wells, and next steps.

Andri showed a list of the communities included in the Conceptual Plan along with each community's number of existing wells covered in the Conceptual Plan, additional wells that might need treatment based on the updated HBVs, and the total number of wells in the community. Six communities have additional wells that may need treatment.

Around half of all private wells in the East Metro have been sampled for PFAS. Approximately 650 residential wells that have already been sampled and did not previously need treatment are likely to now need treatment. At least 1,300 residential wells will need to be resampled using newer laboratory methods. This is likely to take one to two years, and MPCA is in the process of reaching out to impacted residents through letters and phone calls. The Co-Trustees want to work with communities to help share this information with residents.

As a next step, the Co-Trustees will continue evaluating Priority 1 funds as community projects are implemented and new ones are needed. The Co-Trustees are discussing additional treatment needs with communities. Updated costs were shared in October 2023, and the Co-Trustees will provide an update during the spring work group meeting on any additional costs for treating additional wells. This will also be included in the Annual Review, and any reallocation needs will be discussed with the work group members.

Whole-home treatment systems will be installed in homes that have wells with health risk advisories. MPCA is unsure of the timing to complete these installations as the agency is in the process of adding additional contractors to increase installations. Well owners with immediate concerns can learn more about consumer filters on the MDH website.

Andri reiterated that the EPA MCLs are expected to be finalized soon, and the Co-Trustees will discuss additional treatment needs with communities once the MCLs are released. The next biannual work group meeting will be in spring 2024, and the Co-Trustees will talk through updated costs and review the MCLs if they have been released.

Feedback

One work group member asked if advisories for private wells are handled differently from public water systems, and if the 650 private wells that may need treatment already have advisories. Andri said MPCA is working with MDH to figure out how they will be handled. Well advisories for the old HBVs are still being sent out.

One work group member asked what outreach to those with private wells looks like. They asked if the communication was through the agency directly, or if the agency is working with any associations or private well contractors. Andri said that the agency does most of the communications, and there is an online form for the public to request sampling. Kirk added that MPCA also sends letters directly to residents and is in the process of sending some out. The work group member noted that only a specific list of contractors is being asked to work with MPCA, creating a gap in communication with private well owners that have other contractors. They also noted they have some contacts they can share with MPCA to help with outreach. Kirk said that MPCA is happy to work with them to help with outreach. The work group member also noted that the information presented regarding the HBVs and MCLs should be made easier for the public to understand. Units should be simpler and put into context.

One work group member asked if homeowner association (HOA) community wells are treated as public water systems or private wells. Lucas said that if they meet the definition of a community public water system, they are regulated as such.

One work group member asked if the table includes temporary treatment projects (such as those in Oakdale, Woodbury, and Cottage Grove). Andri responded that the table only shows wells that are covered in the Conceptual Plan as long-term treatment. The work group member asked if any of the temporary treatments are going to become permanent; Andri said that most will be demolished once permanent solutions are in place.

Public comments and questions

One member of the public asked if treatment systems for private wells will only be installed in the Priority 1 area or if there is a plan for treatment of private wells outside of the East Metro that are exceeding health advisories. Andri said the Settlement will cover treatment systems for the East Metro. Kirk said MPCA will also be contacting residents who live in known areas of contamination outside of the East Metro and conducting sampling in private wells. Linking detections of PFAS to contamination sources will be difficult due to the overall presence of PFAS in the environment. Funding from the Settlement is only for treatment related to release of hazardous substances, not ambient PFAS found in the environment. The member of the public asked if that means there are funds available for treatment of contamination outside of the East Metro area if the PFAS is connected to a release area. Kirk said there may be situations where areas outside of the East Metro could qualify, but they have to be connected to a release.

One member of the public asked if the other half of the private wells in the East Metro are going to be sampled. Andri said that MPCA is going to continue to conduct sampling and will sample private wells as they are requested through MPCA's online form. MPCA will also look at the PFAS plume and conduct additional sampling based on that.

One member of the public noted that the new HBVs are stringent, and asked if the standards are reasonable and how the Co-Trustees are going to pay for the types of large projects needed to meet the HBVs. Kirk noted that PFAS is the most studied chemical class at the moment and new information is coming out quickly. Regarding costs, many wells and communities have been built into the Conceptual Plan and are already accounted for. Even if the Settlement runs out of money, 3M is still responsible for treatment costs under the 2007 Consent Order. Local communities will not have to cover the costs.