Association of State
Drinking Water Administrators

September 17, 2021

Ms. Radhika Fox,
Assistant Administrator, Office of Water
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

Subject: Proposed Rule - Drinking Water Contaminant Candidate List 5-Draft [Docket # EPA-HQ-OW-2018-0594]

Dear Ms. Fox:

In response to the notice in the *Federal Register* of July 19, 2021 (Volume 86, Number 135) the Association of State Drinking Water Administrators (ASDWA) would like to offer comments on the draft fifth Contaminant Candidate List (CCL 5). ASDWA supports and represents the collective interests of the states, territories, and the Navajo Nation in their administration of national drinking water program requirements within their states or territories including regulatory development and the CCL. ASDWA appreciates the opportunity to provide the perspective of states on this important phase of the regulatory process. It should be noted, however, that these comments do not necessarily represent the specific views and concerns of individual states or consensus from all states. We encourage EPA to consider individual state's comments, in addition to ASDWA's, to gain further perspective.

The CCL Process

ASDWA strongly supports the regulatory development process outlined in the 1996 Safe Drinking Water Act (SDWA) amendments, including the CCL, the Unregulated Contaminant Monitoring Rule (UCMR), Regulatory Determination, and Six Year Review. Through this process, EPA can assess health risks and assemble occurrence data needed to determine whether or not contaminants warrant national regulations and, if so, at what levels. The regulatory determination process is designed to capture the contaminants that pose the greatest potential public health threat, based on health effects, occurrence and the potential regulatory opportunity for health risk reduction. This process, supported with best available, peer-reviewed data, is vastly preferable to regulating based on arbitrary target numbers or focusing on contaminants with high media profiles -- but where there may not be reliable data to support regulation. The CCL is the critical first step in the regulatory consideration and development process. As such, the link between the CCL and UCMR is critical. ASDWA is concerned with the Agency's approach for UCMR 5, specifically that the final UCMR 5 did not include many contaminants identified in CCL 4 where national occurrence data is needed. ASDWA recommends that EPA take steps to optimize

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the connection between the CCL and UCMRs. Future UCMRs should be designed to generate robust national occurrence data to fill data gaps for contaminants listed on the most recent CCL.

ASDWA supports the process EPA used to develop CCL 5. The work the Agency completed to profile and review thousands of contaminants is appreciated. ASDWA supports the approach of not automatically carrying over contaminants from CCL 4 to CCL 5. However, ASDWA recommends that EPA provide further details on why contaminants from CCL 4 were not also listed on CCL 5 when no regulatory determination was made. For example, did new research come to light on the contaminant's occurrence or health effects? Did another EPA program address this contaminant making it less of a threat for drinking water sources? ASDWA recommends that EPA develop a summary for the final CCL 5 for the 68 contaminants listed on CCL 4 but not listed on draft CCL 5. A chart or table with some basic explanatory text would suffice. EPA's transparency in this determination process is appreciated and especially helpful for state programs that may be monitoring and tracking emerging drinking water contaminants.

Moving Forward with Regulatory Determinations

ASDWA recommends that EPA act on CCL contaminants with sufficient data to make a Regulatory Determination. The CCL is not intended to be a permanent home for contaminants, yet eight contaminants that have been on all five CCLs: Diuron, Methyl tert-butyl ether (MTBE), Vanadium, Adenoviruses, Caliciviruses, Cyanobacteria/toxins, Helicobacter pylori, and Mycobacterium avium-intracellulare (MAC). EPA first identified these contaminants as concerning in 1998 and, from ASDWA's perspective, no progress in regulatory-decision making has been made in over 20 years for these eight.

Additionally, the draft CCL 5 lists 23 contaminants that have nationally representative finished water occurrence data and qualifying health assessments. ASDWA recommends that EPA make regulatory decisions on these contaminants in Fifth Regulatory Determination. While the law requires EPA to make regulatory determinations for at least five contaminants from the most recent CCL within five years after the completion of the previous round of regulatory determinations, ASDWA encourages EPA to make a regulatory determination for any CCL contaminants with adequate data – specifically, these 23 contaminants. Once adequate data is available to support a decision to regulate or not to regulate, those contaminants should be removed so the focus can shift to other contaminants where more information is needed.

Connecting the CCL with EPA Research

ASDWA recommends that EPA develop a stronger and more visible connection between the CCL and the Agency's research plans. The vast amount of work to chronicle research gaps for these contaminants listed on the CCL should serve as a springboard for federal and federally funded research over the following five years. EPA research should aim to fill gaps in health effects data, treatment information, and occurrence data. Contaminants listed in the CCL that do not have approved analytical methods, for example, should be EPA's focus for analytical method development over the next five years. If EPA

already uses the CCL as the foundation for its research, ASDWA recommends that the Agency make this connection clearer for stakeholders in the final CCL 5.

Contaminant Groups

ASDWA generally supports EPA's use of groups on the CCL, however, the agency should provide clarification on how groups of contaminants will be treated for Regulatory Determinations and UCMR selection as well as how contaminants within the groups will be prioritized for research.
ASDWA specifically supports EPA placing the per- and polyfluoroalkyl substances (PFAS) group on the CCL, however there are some concerns regarding the definition of PFAS the Agency is using. In the proposed rule, EPA states the following regarding the definition of PFAS, "This group is inclusive of any PFAS (except for PFOA and PFOS). For the purposes of this document, the structural definition of PFAS includes per- and polyfluorinated substances that structurally contain the unit R-(CF2)-C(F)(R')R". Both the CF2 and CF moieties are saturated carbons and none of the R groups (R, R' or R") can be hydrogen (USEPA, 2021f)." Using this definition limits the group of PFAS to substances that contain a two-carbon chain, where one carbon is fully fluorinated. This definition undoubtedly excludes many substances that could otherwise be considered PFAS, including those that have been found in drinking water and their sources, for example, this definition of PFAS would not include perfluoro-2-methoxyacetic acid (PFMOAA), a perfluoro-ether carboxylic acid which has been found in the North Carolina Cape Fear River and nearby drinking water supplies. ASDWA recommends that EPA reevaluate this definition to be appropriately inclusive of PFAS and should consider revising the structural definition for PFAS being used by the agency. EPA should consider the definitions used and developed by the Organization for Economic Co-operation and Development and the Interstate Technology Regulatory Council. EPA should also recognize that this classification groups together many substances that will have vastly different overall structures thereby calling into question both their fate and transport in the environment and the likelihood that they would cause similar adverse health outcomes. EPA should explain if and how grouping thousands of PFAS for inclusion on the final CCL 5 will impact the treatment of individual compounds throughout the regulatory determination process and clarify how and if screening and proxy methods such as the total organic fluorine (TOF) method will be used.

Comments on Select Draft CCL 5 Contaminants

The following comments provide additional detail on contaminants listed on the Draft CCL 5 that are a particular concern for state drinking water programs.

Manganese

ASDWA supports the inclusion of manganese on CCL 5. The health advisory for manganese (2004) is outdated and needs to be updated in a timely manner. Research linking the secondary standard to aesthetic issues has also been criticized, as the aesthetic issues are seen at levels much lower than 0.05 mg/L. ASDWA recommends that EPA conduct an updated risk assessment on manganese in a timely manner, so that the manganese health effects data can catch up with the occurrence data from the

Fourth Unregulated Contaminant Rule (UCMR4) and regulatory decisions, i.e., a regulatory determination can be made in a timely manner.

Several recent health effects studies have shown adverse neurotoxic effects of high levels of manganese in drinking water and many states have been taking action to address the contaminant. For example, Massachusetts has undertaken an initiative to make its public water suppliers and their customers more aware of the existing US EPA health advisory values for manganese and the health implications of having exposures greater than those guidelines. This initiative included a monitoring requirement to better understand the extent of manganese contamination. The initiative found a significant number of samples had manganese concentrations greater than the US EPA lifetime Health Advisory level of 0.3 mg/L. Sampling data indicated that approximately 35-40% of raw groundwater samples and about 12-26% of finished water samples used by these public water suppliers exceed this limit. Additionally, New Hampshire has recently adopted a state advisory of 0.1 mg/L for manganese for protection of infants and has also adopted a state ambient groundwater quality standard of 0.3 mg/L. With numerous studies pointing to the negative impacts of high levels of manganese in drinking water, ASDWA recommends that EPA evaluate the need to update the manganese health advisory and make a regulatory determination.

1,4-dioxane

ASDWA supports the inclusion of 1,4-dioxane as a contaminant on CCL 5. 1,4-dioxane has been widely used as a solvent and organic solvent stabilizer in the past. It has also been a component of many personal care products. EPA has classified 1,4-dioxane as a likely human carcinogen and established a 1-day health advisory of 4.0 milligrams per liter (mg/L) and a 10-day health advisory of 0.4 mg/L for 1,4-dioxane in drinking water for a 10-kilogram child. EPA also established a lifetime health advisory of 0.2 mg/L for 1,4-dioxane in drinking water.

Contamination of both groundwater and surface water sources of drinking water from 1,4- dioxane is extensive. The results of the Third Unregulated Contaminant Monitoring Rule (UCMR3) found that of the 4,916 public water systems (PWS) tested, 1,077 PWSs in 45 states detected 1,4-dioxane above 0.07 ppb, and 6.9% of PWSs detected 1,4-dioxane above 0.35 ppb. Since the UCMR monitoring universe is the approximately 4,000 PWSs that serve over 10,000 people plus approximately 800 smaller systems, these sample results represent only a fraction of the over 50,000 Community Water Systems (CWSs), which are a subset of the over 150,000 PWSs. The additional PWSs that may be impacted by 1,4-dioxane and were not included in the UCMR3 are typically small groundwater systems with limited capacity to assess and address 1,4- dioxane. The vast majority of UCMR3 PWSs were surface water systems.

In the absence of a federal standard, some states across the country are taking additional actions to address public health impacts from 1,4-dioxane drinking water contamination in both surface water and groundwater sources. However, other states are unable to develop their own guidelines or regulations that are more stringent than federal standards, and/or do not have the resources to conduct sampling programs. Four states have developed state-level regulatory actions in the absence of a federal standard: New York established a MCL for 1,4-dioxane at 1 ppb; Massachusetts established a drinking

water guideline at 0.3 ppb; California established a health action level of 1 ppb; and New Hampshire established an ambient groundwater quality standard (AGQS) level of 0.32 ppb. Additionally, 14 other states have established groundwater or drinking water standards or guidelines with levels ranging from 0.3 to 77 ppb.

EPA taking a leadership in driving this chemical through its drinking water standards development process would benefit several states, as setting and implementing a drinking water exposure limit for 1,4-dioxane presents challenges to the states. Additionally, ASDWA requests the Office of Water continue to coordinate with EPA's Office of Chemical Safety and Pollution Prevention (OCSPP) to ensure the risk evaluation for 1,4-dioxane under the Toxic Substances Control Act (TSCA) includes drinking water as an exposure pathway.

PFAS

ASDWA supports the inclusion of PFAS as a group on CCL 5. State and territorial drinking water programs have been confronted over the past several years with how to appropriately address PFAS challenges. In response to increasing discoveries of PFAS contamination in drinking water sources, and without a federal enforceable standard for PFAS in drinking water, states that have never developed drinking water standards in the past are now setting state-level MCLs for the first time. Six states have state-level MCLs for a subset of PFAS; another four states have set response or action levels. An additional five states are currently developing standards or guidelines.

Some states are also taking other non-regulatory approaches and actions to assess and address PFAS in drinking water and more broadly for other media. These approaches and actions include: developing multi-agency PFAS Action Plans and Response Teams; undertaking PFAS sampling programs for drinking water systems and surface water and groundwater sources of drinking water; conducting inventories of facilities that use, have used, or produced PFAS; responding to drinking water contamination throughout the state and across media (e.g., residuals, effluent discharges, landfill leachate, Superfund sites); banning use in products; and working with EPA and the Department of Defense (DoD) to address site specific PFAS contamination. At least 15 states have a prohibitive law or policy that prevents them from being stricter than federal water standards. PFAS remain a high priority drinking water contaminant and further research is needed on the thousands of compounds that make up this chemical class.

Unregulated Disinfection Byproducts (DBPs)

ASDWA supports the continued inclusion of unregulated DBPs on CCL 5. According to EPA research, "Since 1976, more than 600 DBPs have been reported, but only a few of them have been quantitatively assessed for their occurrence and health effects." States are concerned about the lack of information for many DBPs. As EPA considers changes to the Microbial and DBP regulations, health effects data and additional data on the accuracy and reliability of analytical methods for detecting unregulated DBPs at low concentrations is critical. ASDWA recommends that EPA work to fill research gaps for these contaminants, particularly the nine species of haloacetic acids (HAA9), nitrosamines, brominated and iodinated DBPs. This research effort should also include developing further information, including

treatment, on precursors (e.g., bromide) for these currently unregulated contaminants and the means to protect sources of drinking water.

Legionella

Legionella continues to present a microbial concern for states and is the most significant cause of waterborne disease outbreaks. Although the key to preventing Legionnaires' disease is ensuring building owners and managers maintain building water systems to reduce the risk of *Legionella* growth and spread, water systems play a crucial role in delivering safe and high-quality water to these buildings.

Part 141.3 of the National Primary Drinking Water Regulations, which is based on Section 300g-1 (a) of the Safe Drinking Water Act, specifies that buildings served by a public water system that meet criteria that might otherwise make them a consecutive water system, are not regulated if they meet four criteria, the first of which is that they do not treat the water. Treatment is not defined in this exception which leaves it open to state interpretation, although EPA has issued guidance on the definition of treatment (EPA WSG 8, 8A & H26). As awareness of *Legionella* continues to grow, some buildings are installing devices or treatment to address microbial contaminants, including *Legionella,* in their plumbing. States have taken various approaches to address building water systems, ranging from regulating them as public water systems, contacting critical categories of water users (like health care facilities) to request documentation about any treatment that might be installed to relying on state or local building codes to govern these facilities rather than actively regulating them. The biggest concern for states as they consider how to address building water systems is the state resources needed to regulate these facilities. Also, assuring treatment effectiveness and optimization coupled with a health care facility's CMS-required Water Management Plan are additional challenges for all involved professionals. While many thousands of new public water systems could result from aggressively identifying and regulating buildings water systems, potential adverse public health consequences can occur by not regulating building water systems, including chemical overfeeds.

While it is primarily considered a premise plumbing problem, studies have also linked *Legionella pneumophila* to detections and amplification in storage tanks, and the water sector should be looking holistically at addressing this contaminant. ASDWA recommends that EPA develop a holistic research strategy in coordination with the Centers for Disease Control and Prevention (CDC) for this contaminant, including new or validated analytical methods, occurrence research and regulatory strategies for reducing occurrence. This should include research on the removal of protozoa that harbor *Legionella* and compare this to the CT (concentration of a disinfectant multiplied by the contact time) and log filtration credit for Cryptosporidium and Giardia. Additional research is needed on amoebae serving as a seeding vehicle for Legionella in the distribution system and premise plumbing to ensure confidence that the existing treatment technique adequately addresses Amoebae-Legionella interactions. Such a research plan should also include developing directions detailing when and where to test for *Legionella pneumophila* and remediation actions to take once it is found. Jointly developed guidance from EPA and CDC in this area is needed and welcome.

Cyanotoxins

ASDWA supports the inclusion of cyanotoxins on CCL 5, as cyanotoxins from harmful algal blooms (HABs) are occurring with increasing frequency in drinking water sources and negatively impacting drinking water treatment facilities throughout the US. State drinking water programs play a key role in helping water systems monitor for and treat cyanotoxins and respond to HAB events. Multiple states have been adversely affected by cyanotoxins, including those along the Ohio River, in Toledo, Ohio and in Salem, Oregon where the water systems had to issue "do not drink" notices to their customers. These drinking water treatment facilities face a difficult task of not only addressing water quality changes from HABs and removing cyanotoxins but doing so in a safe and cost-effective way to protect public health.

Many states have taken action to address cyanotoxins, such as Oregon and Ohio, who have developed state regulations for cyanotoxin monitoring. Oregon requires that drinking water systems using surface water sources susceptible to harmful algae blooms routinely test for Total Microcystins and Cylindrospermopsin and notify the public about the test results. Ohio has also developed HAB monitoring and reporting rule requirements for public water systems with a surface water source. Additionally, Wisconsin, Indiana, Massachusetts, New York, Oregon, and Ohio have developed algae websites that provide information, fact sheets, and resources for the public about possible high levels of blue-green algae and the potential health effects of cyanotoxins.

In closing, ASDWA is pleased to provide input on the draft CCL 5 and appreciates the Agency's consideration of our comments. If you have any questions about these concerns or want to discuss these comments further, please contact Wendi Wilkes at wwilkes@asdwa.org or myself at aroberson@asdwa.org or give me a call at (703)-812-9507.

Sincerely,

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