

**U.S. Environmental Protection Agency's  
National Drinking Water Advisory Council**

**Public Meeting**

**October 11, 2023**

**Meeting Summary**

**Chair's Welcome and Introductions**

The National Drinking Water Advisory Council's (NDWAC) Designated Federal Officer (DFO) **Elizabeth Corr** opened the meeting, reviewed logistics, and introduced the NDWAC's Chair, **Lisa Daniels**, Director of the Bureau of Safe Drinking Water at the Pennsylvania Department of Environmental Protection.

**Ms. Daniels** welcomed everyone to the meeting and thanked the NDWAC members, Microbial and Disinfection Byproducts (MDBP) Rule Revisions Working Group members, and public attendees for joining. She briefly reviewed the agenda and then asked the other NDWAC members, Center for Disease Control (CDC) liaisons, and working group members who were present to introduce themselves, as follows:

NDWAC members:

- **Yolanda Barney**, Environmental Program Manager of the Navajo Public Water System Supervision Program, Navajo Nation Environmental Protection Agency.
- **D. Scott Borman**, General Manager of Benton/Washington Regional Public Water Authority.
- **Alexandra Campbell-Ferrari**, Co-Founder and Executive Director of the Center for Water Security and Cooperation.
- **Shellie R. Chard**, Director of the Water Quality Division for the Oklahoma Department of Environmental Quality.
- **Steven B. Elmore**, Program Director of the Bureau of Drinking Water and Groundwater, Wisconsin Department of Natural Resources.
- **Eagle Jones**, Director of Water Operations for the Pechanga Tribal Government.
- **Jana Littlewood**, Board of Directors – Alaska Representative for the National Rural Water Association.
- **Jennifer L. Peters**, National Water Programs Director for Clean Water Action/Clean Water Fund.
- **James M. Proctor, II**, Senior Vice President and General Counsel for McWane, Inc.

- **Nancy A. Quirk**, General Manager for the Green Bay Water Utility.
- **Jeffrey W. Szabo**, Chief Executive Officer for the Suffolk County Water Authority.

Centers for Disease Control and Prevention liaisons:

- **Dr. Arthur S. Chang**, Chief Medical Officer for the Division of Environmental Health Science and Practice, National Center for Environmental Health Centers for Disease Control and Prevention.
- **Dr. Vincent Hill**, Chief of the Waterborne Disease Prevention Branch for the Division of Foodborne, Waterborne, and Environmental Diseases, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention.

MDBP Rule Revisions Working Group members:<sup>1</sup>

- **Andy Kricun**, PE, Working Group Co-Chair, Senior Fellow, U.S. Water Alliance Managing Director, Moonshot Missions.
- **John Choate**, General Manager for the Tri County Regional Water Distribution District.
- **Kay Coffey**, PhD, PE, Engineering Manager and Public Water Supply Group Project Adviser for the Water Quality Division of the Oklahoma Department of Environmental Quality (Not Present).
- **Jeffrey K. Griffiths**, MD, MPH & TM, Professor of Public Health and Community Medicine, and of Medicine at Tufts University School of Medicine.
- **Michael Hotaling**, MBA, PE, Facilities Manager (Retired) at Newport News Waterworks Department.
- **Jolyn Leslie**, PE, Regional Engineer for the Office of Drinking Water, Northwest Regional Office, Washington State Department of Health.
- **Rosemary Menard**, Water Director for the City of Santa Cruz.
- **William F. Moody**, PE, BCEE, Director for the Bureau of Public Water Supply, Mississippi State Department of Health.
- **Erik D. Olson**, Senior Strategic Director of Health & Food for the Healthy People & Thriving Communities Program, Natural Resources Defense Council (NRDC).
- **Benjamin J. Pauli**, PhD, Associate Professor of Social Science at Kettering University.
- **Lisa J. Ragain**, Principal Water Resources Planner for the Metropolitan Washington Council of Governments.
- **Lynn W. Thorp**, National Campaigns Director for the Clean Water Action and Clean Water Fund.

---

<sup>1</sup> Five NDWAC members are also on the MDBP Rule Revisions Working Group: Elin Betanzo, Scott Borman, Lisa Daniels, Nancy Quirk, and Alex Rodriguez.

**Ms. Corr** noted that NDWAC members **Alex Rodriguez**, President and Chief Executive Officer of DCG Public Affairs, Diversity Consulting Group, LLC in Santa Barbara, California, and **Macaroy Underwood**, Principal Consultant with Raftelis Financial Consultants out of Vestavia, Alabama, and MDBP Rule Revisions Working Group member **Gary Williams**, Executive Director of the Florida Rural Water Association, would not be attending the meeting. She also noted that **Elin Betanzo**, Founder and Principal for Safe Water Engineering, LLC, in Detroit, Michigan, would join the meeting later.<sup>2</sup>

### **Office of Water Welcome**

Ms. Corr introduced **Mae Wu**, Deputy Assistant Administrator of EPA's Office of Water. **Ms. Wu** thanked the NDWAC members for their significant commitment. Referring to her own earlier experience as a NDWAC member, Ms. Wu recognized how discussing challenges in this forum identifies solutions to problems, which moves these issues forward in protecting public health. She noted that in recent years the NDWAC has provided invaluable advice including on rules related to Consumer Confidence Reports, lead and copper, and per- and polyfluoroalkyl substances (PFAS). She also recognized that currently the NDWAC is benefiting from the dedicated assistance of the MDBP working group members and expressed her appreciation for their commitment. Ms. Wu emphasized the pivotal nature of this moment in the water sector, underscored by the unprecedented attention water is receiving thanks to the Bipartisan Infrastructure Law (BIL). She highlighted funding for states, tribes, and territories for various purposes, including addressing aging infrastructure, enhancing climate resilience, and eliminating lead contamination, emphasizing that it is crucial to ensure equitable distribution of federal investments among communities. She further emphasized that every community should have access to safe and reliable tap water and said that to achieve this goal targeted support as well as new policies and regulations are being implemented to reach communities in the most efficient manner.

Ms. Wu explained that this meeting explores one of the EPA's top priorities concerning clean and safe drinking water, specifically the MDBP rules and potential revisions. She noted that the working group had gathered a multitude of thoughts and recommendations and that this meeting offers an overview. Ms. Wu observed that the meeting represents just one discussion in a series that will guide the refinement of potential revisions. She shared her anticipation about making progress on these significant policies, recognizing that this effort is not merely about written documentation but is fundamentally about safeguarding public health. She noted that the Clean Water Act (CWA) was passed in 1972, and the Safe Drinking Water Act (SDWA) was passed in 1974, almost 50 years ago, and expressed how proud she is of the work that has been done to achieve public health protection under these statutes.

---

<sup>2</sup> Ms. Betanzo joined later in the meeting.

Ms. Corr introduced **Yu-Ting Guilaran**, Deputy Director of the Office of Ground Water and Drinking Water. Ms. Guilaran expressed appreciation for Ms. Wu's background and experience with the NDWAC and her recap of EPA successes in implementing the BIL. Ms. Guilaran emphasized the importance of bringing the NDWAC and MDBP working group members together to talk about emergent recommendations and explained that this milestone contributes to the working group in supporting the NDWAC later this year in response to the EPA charge on potential revisions to MDBP rules. She also emphasized that regulations addressing microbial pathogens and disinfection byproducts (DBPs) are among the most important public health protections for consumers in our nation, adding that these have been highly successful rules implemented by dedicated utility operators and states. Ms. Guilaran mentioned Legionnaires disease, which is caused by *Legionella* and sickens many thousands of people a year, as an example of where EPA thinks there are improvements to be had to balance the risk. She shared that the working group had met 11 times since May 2022 with co-chairs Andy Kricun and Lisa Daniels's leadership. She noted that five working group members are also on the NDWAC and highlighted the partnership with the Office of Environmental Justice (EJ), noting that two working group members serve on the National Environmental Justice Advisory Council (NEJAC). Ms. Guilaran also thanked the technical analysts who have provided information necessary for the working group's discussions and deliberations. Ms. Guilaran explained that this meeting's purpose is to provide an opportunity to ask questions and get additional clarity that will be helpful to the NDWAC and that discussions will start with familiarizing NDWAC members with emergent recommendations, which will enable working group members to further understand what else would be helpful from the NDWAC. In closing Ms. Guilaran again thanked everyone for their time and participation.

#### **Public Comment to the National Drinking Water Advisory Council**

Ms. Corr asked Brian Redder to introduce himself. **Brian Redder** introduced himself as the Manager of Regulatory and Scientific Affairs at the Association of Metropolitan Water Agencies (AMWA) and thanked the NDWAC and EPA for allowing AMWA to comment and thanked everyone for all the effort that has been put into the process. Mr. Redder stated that while AMWA is very supportive of the aims of the working group they have concerns and suggestions. Mr. Redder explained that AMWA, Natural Resources Defense Council (NRDC), and Clean Water Action all had joined together in a letter to request EPA conduct negotiated rulemaking for the MDBP revisions. In the letter, AMWA, NRDC, and Clean Water Action stated that a negotiated rulemaking is by design more collaborative and resulting agreements in principle bind those at the table to abide by the negotiation. Mr. Redder stressed that EPA denied this request and instead elected to charge the NDWAC with developing recommendations for revisions, and although EPA urged the working group to strive for consensus recommendations, there was no guarantee that this would happen. AMWA was also hoping for more public participation in this process. Mr. Redder said that key stakeholders were not able to participate in the working group meetings beyond watching and did not have access to the vast majority of materials made available to the working group. Mr. Redder also suggested that members of the public could not

see important working group interactions like who was raising their hands during consensus votes and what was being said in the Zoom chat. Mr. Redder went on to further state that a lack of current and conclusive data has resulted in at least two potential recommendations addressing these data gaps. Mr. Redder expressed that AMWA believes that any future process for MDBP improvements would benefit from this data to generate robust science-based recommendations, and it is difficult for EPA to propose a regulation based on an individual's assumptions, unsupported by data, that an intervention will have a positive effect on water quality. Mr. Redder said that, although technical analysts had voluntarily committed their time to assist with the process, it appeared they were also restricted with what material they could share with the working group members. Mr. Redder noted that, during working group discussions, members emphasized the importance of strengthening MDBP rule enforcement for public health.

Mr. Redder stated that AMWA urges the NDWAC to encourage EPA to provide states with resources needed for better enforcement. As recommendations are near finalization, AMWA hopes for unanimous recommendations based on sound science and encourages including scientific reasoning in the process. Previous groups have produced reports with consensus and non-consensus recommendations. AMWA encourages focus on consensus recommendations.

Mr. Redder's written comments are in Attachment C.

### **Potential Revisions to Microbial and Disinfection Byproducts Rules: Background and Charge to the NDWAC**

Ms. Corr introduced **Crystal Rodgers-Jenkins**, Deputy Director of EPA's Standards and Risk Management Division. Ms. Rodgers-Jenkins conveyed how pleased she was with the degree of discussion and thoughtfulness about a path going forward.

Ms. Rodgers-Jenkins provided a foundational introduction of the NDWAC process and regulatory history. Her presentation is in Attachment A.

### **Working Group Emergent Recommendations Overview and Objectives**

Lisa Daniels, as Co-Chair of the MDBP Rule Revisions Working Group, welcomed everyone to the meeting and began by providing some background information on what the MDBP working group has done to date, as well as explaining the scope and cross-cutting themes that will be reflected in the final report. She reminded everyone that there will be continued and ongoing discussion with the working group to determine the level of support for each emergent recommendation to work towards a group consensus. Ms. Daniels emphasized that as a part of the working group procedures, when a consensus is not reached, the alternative perspectives will be captured in the report. In addition, each working group member will be able to provide up to three pages of attributed comments which will be included in the final report. She also shared that the next working group meeting will be held on October 31 with a tentative

meeting scheduled for November 2; however, Ms. Daniels expressed that they may not need this additional meeting if everything is finalized during the October 31 meeting.

Ms. Daniels said that the working group recommendations will help support EPA as a part of the review process to work towards finalizing rule revisions. She noted that there is an emphasis on delivering equitable outcomes for all communities, with the need to address affordability and provide support to EJ and overburdened communities to ensure no one is left behind. Ms. Daniels expressed that there is an understanding that new requirements can place additional pressure on the affordability of drinking water services, so the recommendations can provide enhanced support. Many of the recommendations reflect a problem-based emphasis and seek to establish positive incentives for identifying and addressing problems. The recommendations are assembled to intertwine and work together to advance equitable public health improvements and public water system (PWS) performance. Lastly, Ms. Daniels explained that the recommendations span from source water to tap, include SDWA changes, as well as other federal authorities, and provide a mix of regulatory and non-regulatory interventions.

### **Emergent Recommendations 1-12 Presentation**

Ms. Daniels and Andy Kricun, Co-Chairs of the MDBP Rule Revisions Working Group, shared the 12 emergent recommendations and provided details on each. Their presentation is in Attachment B.

#### **Recommendation 1: Disinfectant Residual**

This recommendation will help address the potential for no or low disinfectant residual in surface water PWS' distribution systems (DS). The working group discussed and acknowledged that there is potential to exacerbate disinfection byproduct (DBP) challenges, so this recommendation should link to a clear requirement for EPA to provide assistance to overcome these challenges. Ms. Daniels explained the three-part approach to tackling disinfectant residuals:

1. Adopt a national numeric minimum disinfectant residual requirement.
2. Establish and require adoption of a disinfectant residual sampling and monitoring approach to provide an enhanced understanding of areas within the DS that have low or no disinfectant residual.
3. Establish a revised disinfectant residual compliance basis that reduces the potential for areas of the DS to experience low or no disinfectant residual on a repeat basis.

#### **Recommendation 2: Premise Plumbing**

This recommendation will help EPA advance a national building water quality improvement initiative based on enhanced partnerships and collaborations among federal agencies and state SDWA oversight agencies. This includes leveraging existing partnerships to establish a program framework that will incentivize improved premise plumbing safety, as well as expanding partnerships to other stakeholders. This recommendation emphasizes conducting an analysis to

understand any current incentives; establish a framework to identify high risk buildings; identify further incentives for Water Management Plans (WMPs) uptake; and characterize current building, energy, and plumbing code influences.

In addition, this recommendation will build out a risk-based building water management promotional program and help develop and implement *Legionella* public awareness campaigns for smaller scale building owners and/or occupants.

#### Recommendation 3: DBP MCL Data and Analysis Gaps

This recommendation will address any data and analysis gaps associated with DBPs of emerging concern. Key areas for EPA data gathering and analysis include haloacetic acids (HAAs) exposure, chloramination, DBP mixtures and occurrence, health risks, and control strategies for haloacetoneitriles (HANs) and iodinated DBPs. Ms. Daniels emphasized that this recommendation includes generating nationally representative occurrence, health effects, and treatment data for regulated and non-regulated DBP groups. Along with this, EPA-approved analytical methods for DBPs of emerging concern that can be developed.

#### Recommendation 4: Multi-Benefit Precursor Control

This recommendation will establish a PWS source water evaluation screening requirement, and under certain conditions, will provide additional mandatory treatment to reduce DBP formation and disinfection demand. A three-part framework will help guide systems, beginning with source water screening to determine and identify any vulnerable precursor conditions. If these conditions are identified, then the next two steps can be followed: potential for targeted new monitoring, and targeted application of treatment techniques for enhanced precursor control. This approach will facilitate the identification of systems in need of support for precursor control and offers the flexibility of off-ramping based on current operations and treatment technique response options.

#### Recommendation 5: Finished Water Storage Tanks

This recommendation focuses on addressing finished water storage tanks by establishing a national inspection and cleaning requirement to fill the gap left by limited state-level regulatory efforts. This process would be supported by reviews and updates as needed to the current storage tank operations and maintenance guidance.

#### Recommendation 6: Chloramination

This recommendation will help improve chloramination practices to control microbial contamination and DBP formation potential which will improve overall consistency of water quality. The working group will continue to have discussions regarding regulatory and non-regulatory approaches for this recommendation. Some areas of interest for this recommendation include chlorine conversion periods, role of nitrification control plans, and effective practices for managing key operational parameters.

### Recommendation 7: Consecutive Systems

This recommendation will improve water quality and regulatory compliance rates for consecutive systems. Similar to Recommendation 6, the working group is still actively discussing the regulatory and non-regulatory approaches. The areas of interest for this recommendation include improving partnerships between wholesalers and consecutive systems, and establishing a problem-based trigger for coordinated action between partners.

### Recommendation 8: Source Control

This recommendation focuses on leveraging non-SDWA authorities to prevent the introduction of potential drinking water contaminants in the water cycle. In addition, it will restrict discharges into source waters that contribute to the formation of DBPs or growth potential for opportunistic pathogens and the introduction of pathogens.

### Recommendation 9: Environmental Justice

This recommendation will conduct analyses to characterize gaps in MDBP rule implementation by PWSs serving communities with EJ concerns. It will provide new strategies to close the gap and work toward equitable implementation of the MDBP rules. The new requirements should be implemented consistently with additional resources provided to equitably receive the benefits. The following three primary action areas will be included in this recommendation: an EPA analysis to account for existing and potential disparate impacts to communities with EJ concerns; MDBP rule revisions structured to enable and incentivize problem-solving and proactive improvement; and improving community access to timely information.

It was emphasized that this recommendation will help provide resources and address affordability in combination with Recommendation 10.

### Recommendation 10: Public Water System Technical, Managerial, and Financial Capacity

This recommendation will help provide and align additional Technical, Managerial, and Financial (TMF) capacity for small, rural, and underserved communities consistent with new demands placed on PWSs by MDBP rule revisions. It is recognized that many small, rural, and underserved communities operate in a capacity-constrained context as changes to rule requirements may apply additional pressure on maintaining compliance, financial, and resiliency objectives. This recommendation will aim to identify current resources and create new ones to help close the gap and provide these resources to the communities that need them the most. It was discussed that these additional resources will help tackle current costs associated with addressing water quality, and supply reliability issues contributing to cumulative disadvantages experienced in EJ communities. The working group identified four action areas for this recommendation:

1. Prepare an action plan to target additional technical and financial assistance to small, rural, and underserved communities, including systems with non-compliance issues.
2. Evaluate and improve operator certification, particularly with distribution system management.



3. Address affordability by making a permanent low-income household water assistance program.
4. Establish strong incentives for PWSs to train their board members.

Ms. Daniels emphasized that tackling and addressing the managerial component of TMF will help significantly as members of a PWS board will learn about the status of the water quality and how it can be improved to benefit the system.

#### Recommendation 11: Primacy Agency Capacity

This recommendation will address SDWA primacy agency capacity needs associated with the new demands expected from the MDBP rule revisions. It was recognized that changes to the MDBP rules may impose additional pressure on primacy agency's ability to provide support effectively with the new demands required. Furthermore, the gap may increase under these demands unless means are undertaken to lessen this gap. The working group established the following two action areas:

1. Adjust sanitary survey implementation to reflect MDBP rule revisions.
2. Identify and direct capacity resources for Primacy Agencies to implement new MDBP rule requirements (training, funding, guidance, peer support, public notice, PWS TMF capacity, etc.).

#### Recommendation 12: Data and Analysis Gaps

This recommendation will establish efforts to address key MDBP-related data and analysis gaps. Topics in consideration include:

1. Source Water Data and Analysis Gaps
2. Treatment Data and Analysis Gaps
3. Distribution System Data and Analysis Gaps
4. Premise Plumbing Data and Analysis Gaps
5. Enabling Environment Data and Analysis Gaps

These topics require additional research to have a complete understanding of how to address them. There are new treatment technologies that can be researched to encompass every available option to help all communities. Some recommendations require a broader viewpoint and shared responsibility, so collaborating with other agencies and stakeholders will be beneficial.

To end the presentation, Ms. Daniels provided an overview of how the NDWAC charge areas are represented throughout the 12 recommendations that the working group established. The working group had many discussions and continued conversations to align the topics and themes in the charge areas with their suggested recommendations.

#### Discussion

**Ms. Daniels** opened the floor to questions, comments, or feedback from NDWAC members on the 12 emergent recommendations that were presented.

**Shellie Chard** expressed her support for recommendations 1, 2, 7, and 8. She noted that the recommendation regarding consecutive systems will help improve compliance and that there have been more innovative funding approaches with systems being able to capitalize on the available SRF funding. Ms. Chard added that for Recommendation 8, it would be important to reach out to different departments within EPA as many of the water programs are bifurcated among different groups. Some states have their Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) programs within the same agency while others do not, so communicating with all relevant departments will be beneficial. Lastly, Ms. Chard noted that Recommendation 10 will be very helpful for assisting smaller communities, particularly with compliance of existing and any new regulations.

**Ms. Daniels** expressed her thanks for these comments and added that they are looking to go beyond SDWA and collaborate and communicate with other organizations to address these issues.

**Eagle Jones** thanked the working group for all their work and expressed gratitude for addressing many different topic areas. Mr. Jones noted that he appreciates small systems being included in the recommendations and emphasized the need for discussing the level of complexities that small systems face with MDBP rules. In addition, these complexities can be reflected in the training and education that small systems will receive to identify and address issues.

**Ms. Daniels** stated that she appreciates the emphasis on the complexities of MDBPs and agreed that these can be addressed in the training process.

**Jennifer L. Peters** asked if NDWAC members will receive the PowerPoint slides.

**Ms. Corr** responded that the slides will be posted on the website, and she will send them to NDWAC members during the break of this meeting.

**Jana Littlewood** asked regarding Recommendation 1, if each system will have a sampling site plan, maximum residual site, and what EPA envisions for these processes.

**Ms. Daniels** responded that the working group looked at sampling locations in the Revised Total Coliform Rule (RTCR) and considered additional sites to gather more information. In addition, there could be sampling sites at distribution systems or at areas with low flow/residual.

**Ms. Littlewood** also asked if Recommendation 2 considers assuring compliance for premise plumbing in a way that will not affect or impact lead premise plumbing.

**Ms. Daniels** answered that the working group has not delved into too much detail yet on sampling plans for premise plumbing and how to find appropriate sampling sites that do not interfere with sampling for lead premise plumbing.

**Alexandra Campbell-Ferrari** stated she appreciates that new resources will be created to help close the gap and support compliance for small, rural, and underserved communities. In addition, she appreciates that these communities can be fully supported, and the recommendations can help improve equity and affordability for all.

**Mr. Kricun** emphasized that the working group made it clear that the recommendations needed to close the gap and include all communities and households.

**Steve Elmore** noted the ongoing challenge with water systems managing data and expressed the importance of this for implementation of the rule revisions. He asked how a period of increased chlorination would occur, how a system would manage this, and how these would be reviewed by agencies to maintain operational oversight.

**Ms. Daniels** recognized that operational oversight is vital and can be included in guidance, water safety plans, and water management plans. Ms. Daniels agreed that data management will be an integral part, including data transparency and that improvements to the Safe Drinking Water Information System (SDWIS) reporting system will address this.

**Nancy A. Quirk** expressed that she appreciated the discussions and is looking forward to reaching the end product.

**Jeffrey W. Szabo** asked about differences in the processes for Consumer Confidence Report Rule Revisions (CCR3) versus MDBP.

**Elizabeth Corr** explained that the working group will be providing recommendations that are consensus, as well as any recommendations where there is not a consensus.

**Scott Borman** commented that the recommendations encapsulate a broad scope allowing help across all systems. He expressed that for EJ communities it is important to consider how these systems go into their current position. Furthermore, capacity issues with TMF, particularly with the managerial component, could be a root cause and an area to further research to understand issues and how to address them moving forward.

**Elin Betanzo** noted the importance of the recommendations being all encompassing of many issues and that the recommendations are complementary to each other.

**Jeffrey Griffiths** noted the importance of including other organizations to help with premise plumbing and appreciates the working group for incorporating this into Recommendation 2.

**Ms. Daniels** provided some insight into the next steps, including projected timing, plans to provide a degree of support template to working group members, and plans to enable attributed comments (up to 3 pages per working member) as part of the working group's report.

## **Closing Remarks**

Ms. Daniels and Mr. Kricun thanked EPA and all the working group members for their hard work and participation in this process. In addition, they also thanked the technical analysts who have been very helpful throughout the entire process with educating everyone involved. Mr. Kricun expressed how valuable it has been to have many perspectives and expertise throughout this process and noted that everyone's efforts will make a difference for every community and household.

**Eric Burneson**, Director of EPA's Standards and Risk Management Division, noted how appreciative he is of Lisa Daniels and Andy Kricun's leadership throughout this process and thanked them and all working group members for all their hard work.

**Ms. Corr** extended final thanks to all participants for their contributions and adjourned the meeting.

# ATTACHMENT A

# Potential Revisions to Microbial & Disinfection Byproducts (MDBP) Rules: Background & Charge to NDWAC

NDWAC Public Meeting: October 11, 2023

Crystal Rodgers-Jenkins, Deputy Director, Standards and Risk Management Division



## Regulatory History



- ◆ 1979: Interim Total Trihalomethanes (TTHM) Rule
- ◆ **1989: Surface Water Treatment Rule (SWTR)**
- ◆ 1989: Total Coliform Rule (TCR)
- ◆ **1998: Interim Enhanced Surface Water Treatment Rule (IESWTR)**
- ◆ **1998: Stage 1 Disinfectants and Disinfection Byproducts Rule (D/DBPR)**
- ◆ 2001: Filter Backwash Recycling Rule (FBRR)
- ◆ **2002: Long Term 1 Enhanced Surface Water Treatment Rule (LT1)**
- ◆ 2006: Long Term 2 Enhanced Surface Water Treatment Rule (LT2)
- ◆ **2006: Stage 2 Disinfectants and Disinfection Byproducts Rule (D/DBPR)**
- ◆ 2006: Final Ground Water Rule (GWR)
- ◆ 2013: Final Revised Total Coliform Rule (RTCR)

\***Bolded text indicates rules identified under the Six-Year Review 3 as candidates for revision**

# Surface Water Treatment Rules



- Purpose: Reduce illnesses caused by pathogens in drinking water, particularly *Cryptosporidium*, *Giardia*, and viruses.
- Apply to all public water systems (PWSs) using surface water sources or ground water sources under the direct influence of surface water (GWUDI).
- Set maximum contaminant level goals (MCLGs) for microbial contaminants.
  - SWTR (1989): MCLGs of zero for *Giardia lamblia*, enteric viruses, and *Legionella*.
  - IESWTR (1998): MCLG of zero for *Cryptosporidium* for PWS serving > 10,000 people.
  - LT1 (2002): MCLG of zero for *Cryptosporidium* for PWS serving < 10,000 people.
- Established treatment technique requirements – systems must:
  - Provide 2-log removal of *Cryptosporidium*, 3-log removal/inactivation of *Giardia lamblia*, and 4-log removal/inactivation of enteric viruses.
  - Provide a 0.2 mg/L disinfectant residual entering the distribution system and a detectable residual within.

# Surface Water Treatment Rules



- Established treatment technique requirements (continued)
  - Keep combined filter effluent turbidity under a 0.3 NTU limit in 95% of samples and all measurements must be less than 1 NTU.
  - Keep individual filter effluent turbidity under a 1.0 NTU limit (or 0.5 NTU after backwash).
  - Have a sanitary survey conducted every three years for community water systems (CWSs) and every five years for non-CWSs.
  - Set filtration avoidance criteria.
- These requirements, taken together, minimize risks from microbial pathogens, although there are still significant known risks from opportunistic pathogens in distribution systems, such as *Legionella*.

## Stage 1 and Stage 2 DBPR



- Purpose: Reduce drinking water exposure to DBPs.
- Apply to all community water systems and non-transient non-community water systems that add disinfectant other than UV light and transient non-community water systems that treat with chlorine dioxide.
- Stage 1 and Stage 2 DBPRs (1998 and 2006, respectively) set maximum contaminant level goals (MCLGs) for DBPs.
  - Four trihalomethanes (THMs):
    - chloroform – 0.07 mg/L
    - bromodichloromethane – 0
    - dibromochloromethane – 0.06 mg/L
    - bromoform – 0
  - Three haloacetic acids (HAAs):
    - monochloroacetic acid – 0.07 mg/L
    - dichloroacetic acid – 0
    - trichloroacetic acid – 0.02 mg/L
  - Bromate: 0
  - Chlorite: 0.8 mg/L

## Stage 1 and Stage 2 DBPR



- Set maximum contaminant levels (MCLs) for DBPs.
  - Total trihalomethanes (TTHM): 0.080 mg/L
  - Five haloacetic acids (HAA5): 0.060 mg/L
  - Bromate: 0.010 mg/L
  - Chlorite: 1.0 mg/L
- Set maximum residual disinfectant level goals (MRDLGs) and maximum residual disinfectant levels (MRDLs) for disinfectants.
  - Chlorine and chloramines: 4.0 mg/L
  - Chlorine dioxide: 0.8 mg/L
- Stage 2 DBPR bases compliance on locational running annual averages to lower DBP concentrations overall and reduce short-term exposure to high DBP levels.
- Established treatment technique requirements for the removal of DBP precursors (measured as total organic carbon (TOC)) from source water, based on source water TOC and alkalinity.



## Six-Year Review 3



- The 1996 SDWA Amendments require EPA to review existing NPDWRs at least every six years and revise, if appropriate. Each revision shall maintain, or provide for greater, protection of the health of persons.
- A determination to potentially revise a regulation initiates a process that will involve more detailed analyses of health effects, analytical and treatment feasibility, occurrence, benefits, costs and other regulatory matters.
- EPA completed the Six-Year Review 3 (SYR 3) process and published the results in January 2017 (FR 82(7): 3518)
  - Assessed relevant new information up to year of 2015
  - <https://www.epa.gov/dwsixyearreview/six-year-review-3-drinking-water-standards>

## Six-Year Review 3 Results



- EPA determined that multiple microbial-focused NPDWRs are candidates for revision:
  - *Giardia lamblia*, heterotrophic bacteria, *Legionella*, viruses, and *Cryptosporidium*
  - These NPDWRs fall under:
    - Surface Water Treatment Rule (SWTR)
    - Interim Enhanced SWTR (IESWTR)
    - Long-Term 1 Enhanced SWTR (LT1)
- EPA determined that multiple DBP-focused NPDWRs are candidates for revision:
  - Chlorite, five haloacetic acids (HAA5), and total trihalomethanes (TTHM)
  - These NPDWRs fall under:
    - Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR)
    - Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR)

## Charge to NDWAC



- In November 2021 EPA charged the National Drinking Water Advisory Council (NDWAC or Council), a Federal Advisory Committee (FAC) established under the Safe Drinking Water Act of 1974, to provide the agency with advice and recommendations. In addition, to support the work of the Council, EPA asked the NDWAC to form a working group to explore specific issues and identify potential MDBP rule revision options for the Council to consider in making recommendations to EPA.

9

## Overall Schedule



- EPA's schedule for the NDWAC's MDBP Rule Revisions WG meetings started in the Spring 2022 and runs until the Fall 2023
- EPA is targeting the following deadlines:
  - Rule proposal or a formal decision not to propose amended rules: NLT July 31, 2024\*
  - Final Agency Action: Final rule or withdraw proposal by September 30, 2027\*




\* Source: [Waterkeepers Alliance, Inc. et al v. U.S. et al, EPA Settlement Agreement](#), filed June 1, 2020 (19 Civ. 899 (LJL)).

10



**QUESTIONS?**

## ATTACHMENT B



**NATIONAL DRINKING WATER ADVISORY  
COUNCIL  
BRIEFING ON MDBP WORKING GROUP  
OCTOBER 11, 2023**

**CO-CHAIR OVERVIEW OF EMERGENT  
RECOMMENDATIONS  
LISA DANIELS AND ANDY KRIGUN, MDBP WG CO-CHAIRS**

## Briefing Backdrop

1. The Working Group recommendations remain under active discussion.
2. Revisions, some potentially substantial, are anticipated across several of the recommendations.
3. Current Working Group member support varies depending on the recommendation – consensus building ongoing.
4. Working Group Meeting 12, October 31, is target for landing final recommendations.
5. November 2 contingency meeting held on Working Group member calendars.
6. Per Working Group procedures:
  1. Where consensus not reached, non-attributed, alternative perspectives will be captured directly in the report.
  2. Each Working Group member invited to provide up to three pages of attributed comments for inclusion as an attachment to the final report.

# Recommendations Overview



3

## MDBP Working Group Report Cross-Cutting Themes

- WG recommendations positioned as supporting a focus for EPA rules revision evaluation.
- Emphasis on delivering equitable outcomes across all communities irrespective of community and PWS capacity and vulnerabilities – need to address affordability and real support for Environmental Justice and overburdened communities to ensure that no community or household gets left behind.
- There is an understanding that new requirements can place pressure on the affordability of drinking water services (especially small, rural, and EJ communities), and the recommendations seek to reflect a strong emphasis – consistent with the commitment to delivering equitable outcomes – on enhanced support.
- Recommendations reflect a problem-based emphasis and seek to establish positive incentives for identifying and addressing problems proactively.
- Recommendations are assembled to work together to advance equitable public health improvement, even as individual recommendations, in and of themselves, can act to advance public health and improved PWS performance.
- Recommendations span from source water to tap and invoke SDWA changes, other federal authorities (e.g., TSCA, CWA, CAA), and a mix of regulatory and non-regulatory interventions.

## WG Recommendations and NDWAC Charge Topics

### WG Emergent Recommendations

- R1: Disinfectant Residual
- R2: Premise Plumbing
- R3: DBP MCL Data and Analysis Gaps
- R4: Precursor Control
- R5: Finished Water Storage Tanks
- R6: Chloramination Practice
- R7: Consecutive Systems
- R8: Contaminant Source Control
- R9: Environmental Justice
- R10: PWS TMF Capacity
- R11: Primacy Agency Capacity
- R12: Overall MDBP Data and Analysis Gaps

### NDWAC Consensus Recommendation Topics

- Disinfectant residuals and opportunistic pathogens
- Regulated and unregulated DBPs
- Finished water storage facilities
- Distribution system water quality management
- Source water approach, including DBP precursor removal
- Mischaracterized ground water under the direct influence of surface water (GWUDI) systems
- Sanitary Surveys
- Water Safety Plans
- Consecutive and small systems

## WG Recommendations and NDWAC Charge Areas

### WG Emergent Recommendations

- R1: Disinfectant Residual
- R2: Premise Plumbing
- R3: DBP MCL Data and Analysis Gaps
- R4: Precursor Control
- R5: Finished Water Storage Tanks
- R6: Chloramination Practice
- R7: Consecutive Systems
- R8: Contaminant Source Control
- R9: Environmental Justice
- R10: PWS TMF Capacity
- R11: Primacy Agency Capacity
- R12: Overall MDBP Data and Analysis Gaps

### NDWAC Charge Areas

- Advancing public health protection while balancing the risks of microbial control with managing disinfection byproduct formation.
- Addressing public health concerns caused by opportunistic pathogens (e.g., Legionella), disinfection byproducts (e.g., unregulated haloacetic acids), and possibly other emerging contaminants.
- Addressing implementation challenges to reduce the burden of existing MDBP regulations while maintaining or enhancing public health protection.
- Ensuring efficient simultaneous compliance with other drinking water regulations when implementing any proposed revisions to the MDBP rules.
- Additional potential non-regulatory approaches that may improve public health protection from the contaminants under consideration.
- Opportunities to advance environmental justice in regulatory revisions to equitably protect consumers' health, particularly disadvantaged and historically underserved consumers.



## Recommendation 1: Disinfectant Residual

Address the potential for no or low disinfectant residual in surface water PWS distributions systems (DS)

1. Important to acknowledge the potential to exacerbate DBP challenges.
2. Link to clear requirement for EPA to provide assistance to overcome DBP challenges.
3. Three-part approach:
  1. Adopt a national numeric minimum disinfectant residual requirement.
  2. Establish and require adoption of a disinfectant residual sampling and monitoring approach that will provide an enhanced understanding of areas within the distribution system that have low or no disinfectant residual.
  3. Establish a revised disinfectant residual compliance basis that reduces the potential for areas of distribution systems to experience low or no disinfectant residual on a repeat basis.

## Recommendation 2: Premise Plumbing

EPA should advance a national building water quality improvement initiative based on an enhanced partnership among federal agencies and state SDWA oversight agencies.

1. Leverage existing ASDWA, CDC, EPA partnership to establish program framework that incentivizes improved premise plumbing safety WRT opportunistic pathogens.
2. Conduct analysis to: understand current incentives landscape; establish framework to identify high-risk buildings; identify further incentives for WMP uptake; and characterize current building, energy, and plumbing codes influences (e.g., unintended consequences of energy conservation).
3. Expand initial partnership to building owner stakeholders consistent with Item 2 analysis.
4. Build out risk-based building water management promotional program.
5. Develop/implement *Legionella* public awareness campaign for smaller-scale building owner/occupiers.



## Recommendation 3: DBP MCL Data and Analysis Gaps

Address data and analysis gaps associated with DBPs of emerging concern.

1. Generate nationally representative occurrence, health effects, and treatment data on regulated and unregulated DBP groups – includes development of EPA-approved analytical methods for DBPs of emerging concern.
2. Key areas for EPA data gathering and analysis:
  1. HAA exposure
  2. Chloramination DBP mixtures
  3. HAN – occurrence, health risks, control strategies
  4. Iodinated DBPs – occurrence, health risks, control strategies

## Recommendation 4: Multi-Benefit Precursor Control

Establish a PWS source water evaluation screening requirement and, under defined conditions, provide additional mandatory treatment to reduce DBP formation and disinfectant demand.

1. Develop enhanced precursor control rooted in a problem-based, treatment technique requirement.
2. Examine during regulatory development analysis a three-part framework:
  1. Source water screening – identify vulnerable precursor conditions
  2. Potential for targeted new monitoring
  3. Targeted application of treatment technique for enhance precursor control
3. Offramp based on current operations/conditions, and treatment technique flexible response options

## Recommendation 5: Finished Water Storage Tanks

Address finished water storage tank vulnerabilities by establishing a national inspection and cleaning as needed requirement; supported by a review and update as needed of current storage tank O&M guidance.

1. Institute a national finished water storage tank inspection and cleaning as needed requirement to fill the current gap left by limited state-level regulatory efforts for storage tanks.
2. Review of current finished water storage tank guidance to identify gaps and update guidance accordingly, as well as provide for additional guidance in support of implementing a national inspection and cleaning as needed requirement.

## Recommendation 6: Chloramination

Improve chloramination practices to promote control of microbial contamination and DBP formation potential and improve overall consistency of water quality.

1. Regulatory and non-regulatory approaches actively under discussion.
2. Areas of interest include:
  1. Chlorine conversion periods
  2. Effective practices for managing key operational parameters (e.g., chlorine/ammonia ratio)
  3. Role of Nitrification Control Plans

## Recommendation 7: Consecutive Systems

Improve water quality and regulatory compliance rates for consecutive systems.

1. Regulatory and non-regulatory approaches actively under discussion.
2. Areas of interest include:
  1. Improved partnership between wholesalers and consecutive systems
  2. Problem-based trigger for coordinated action between partners

## Recommendation 8: Source Control

Leverage non-SDWA authorities to:

1. Prevent the introduction of potential drinking water contaminants into the water cycle (e.g., TSCA)
2. Restrict discharge into all source waters those constituents that contribute to the formation of DBPs or growth potential for opportunistic pathogens and introduction of frank pathogens (e.g., CAA, CWA)

## Recommendation 9: Environmental Justice

Conduct analyses to characterize the current gap in MDBP rule implementation faced by public water systems serving communities with environmental justice concerns. Provide strategies for ensuring this gap is filled and to work toward more equitable implementation of the MDBP rules across demographic groups. Ensure that new requirements can be implemented consistently, with sufficient additional resources provided to equitably receive the benefits anticipated to result from the rule revisions.

1. Seeks to ensure equitable access across all communities to the intended outcomes of any MDBP rule revisions.
2. Three Action Areas:
  1. EPA analysis account for existing and potential disparate impacts to communities with EJ concerns.
  2. Structure MDBP rule revisions to enable and incentivize problem solving and proactive improvement – emphasis placed on providing needed resources and addressing affordability in combination with Recommendation 10.
  3. Improve community access to timely information.

## Recommendation 10: PWS TMF Capacity

Provide and align additional TMF capacity for small, rural, and underserved communities consistent with new demands placed on PWS by MDBP rules revisions.

1. Recognized that some PWS, particularly small, rural, and underserved (including low income of all sizes) systems, currently operate in a capacity constrained context - changes made to MDBP rule requirements may impose additional pressure on maintaining compliance and meeting desired financial sustainability and system resiliency objectives.
2. Enhanced problem identification and problem-solving resources for water systems serving EJ communities as well as for any water system with persistent non-compliance with SDWA regulations and requirements.
3. New MDBP rule requirements must come with additional resources targeted specifically to support the PWS implementation demands associated with MDBP rule revisions and address anticipated affordability challenges.
4. The current costs associated with addressing water quality and supply reliability issues, as well as the recognition of how poor water quality and unreliable supply contribute to the ongoing and cumulative disadvantages experienced in EJ communities calls for a substantially increased commitment of resources to these efforts.
5. Four Action Areas:
  1. Prepare Action Plan (based on unmet needs analysis) to target additional technical and financial assistance to small, rural, and underserved communities, as well as water systems with persistent non-compliance.
  2. Evaluate and improve operator certification with an emphasis on distribution system management.
  3. Address affordability - make permanent the Low-Income Household Water Assistance, or similar, Program (LIHWAP).
  4. Establish strong incentives for PWS to require training for their Board members.

## Recommendation 11: Primacy Agency Capacity

Address SDWA Primacy Agency capacity needs associated with the new demands anticipated from MDBP rule revisions.

1. Recognizes that SDWA Primacy Agency programs currently operate in a capacity constrained context and that changes made to MDBP rule requirements may impose additional pressure on Primacy Agency ability to support effectively the new implementation demands.
2. To the extent existing Primacy Agency capacity constraints contribute to an inequitable gap in the delivery of safe drinking water across communities, this gap may only increase under the demands of further requirements, unless means are undertaken to lessen this gap.
3. Two Action Areas:
  1. Identify and direct ample capacity resources for Primacy Agencies to implement new MDBP rule requirements: training; funding; guidance; peer support; public notice; PWS TMF capacity.
  2. Adjust Sanitary Survey implementation to reflect MDBP rule revisions.

## Recommendation 12: Data and Analysis Gaps

Undertake efforts to address key MDBP-related data and analysis gaps.

1. Source Water Data and Analysis Gaps
2. Treatment Data and Analysis Gaps
3. Distribution System Data and Analysis Gaps
4. Premise Plumbing Data and Analysis Gaps
5. Enabling Environment Data and Analysis Gaps



## NEXT STEPS

### Working Group Path Forward

- October 16 - Report mark up to WG members
  - Will include degree of support template
  - GWUDI determination path forward
  - Recommendation 12 – emphasis for identified data and analysis gaps
  - Member follow-up on Alternative Perspectives
- October 24 - Comments and support template returned from ALL MEMBERS
- October 31 – Meeting 12 - Final report vetting
- November 2 - Meeting 13 – contingency
- November 6 – Attributed comments due
- November 7 - WG report circulated for final review (if needed)
- November 10 – WG report submitted to NDWAC

## MDBP NDWAC Working Group Membership

- Elin Betanzo - Founder of Safe Water Engineering LLC.
- Scott Borman - General Manager, Benton/Washington Regional Public Water Authority
- John Choate - General Manager, Tri County Regional Water Distribution District
- Dr. Kay Coffey - Public Water Supply Engineering Manager and Group Project Adviser, Oklahoma Department of Environmental Quality Water Quality Division
- Dr. Jeffrey Griffiths - Professor of Public Health and Community Medicine, Tufts University School of Medicine
- Michael Hotaling - Facilities Manager (Retired), Newport News Waterworks Department
- Jolyn Leslie - Regional Engineer, Washington State Department of Health
- Rosemary Menard - Water Director, City of Santa Cruz
- Bill Moody - Director of the Bureau of Public Water Supply, Mississippi State Department of Health
- Erik Olson - Senior Strategic Director, Health & Food, Natural Resources Defense Council
- Dr. Benjamin Pauli - Assistant Professor of Social Science, Department of Liberal Studies, Kettering University
- Nancy A. Quirk - General Manager, Green Bay Water Utility
- Lisa Ragain - Principal Water Resources Planner, Metropolitan Washington Council of Governments
- Alex Rodriguez - President & CEO, Diversity Consulting Group
- Lynn Thorp - National Campaigns Director, Clean Water Action/Clean Water Fund
- Gary Williams - Executive Director, Florida Rural Water Association



**CLOSING REMARKS**  
**CO-CHAIRS LISA DANIELS AND ANDY KRICUN**

A close-up photograph of a water surface with numerous bubbles of various sizes. The water is a clear, light blue color, and the bubbles are scattered throughout the frame, with a higher concentration near the top surface. The lighting creates highlights on the water's surface and within the bubbles.

## **MEETING CLOSURE**

**ELIZABETH CORR, U.S.EPA, DFO**



## ATTACHMENT C – Public Comments to the NDWAC



October 19, 2023

Elizabeth Corr  
NDWAC Designated Federal Officer  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

**Re: October 11, 2023 meeting of the National Drinking Water Advisory Council**

Dear Ms. Corr,

The Association of Metropolitan Water Agencies (AMWA) appreciated the opportunity to provide oral comments at the recent meeting of the National Drinking Water Advisory Council (NDWAC). AMWA is an organization of the largest publicly owned drinking water systems in the United States. Our member utilities collectively provide clean drinking water to over 160 million people. Below are the comments from AMWA provided during oral remarks for the NDWAC’s reference as it reviews the working group report on MDBP rule revisions.

The association thanks the members of the NDWAC and EPA for allowing us the chance to speak today, and particularly wants to thank the MDBP Working group members for all the efforts they have put into this process over the past year and a half. While AMWA is supportive of the aims of the working group in general, there are some concerns and suggestions we would like to voice to you all today.

AMWA has been closely following the MDBP rule revision process from the start. AMWA, the American Water Works Association, Clean Water Action, and the National Resources Defense Council all joined together in a letter to request EPA conduct a negotiated rulemaking for the MDBP revisions. In the letter, our groups stated that a negotiated rulemaking is by design more collaborative and resulting agreements in principle bind those at the table to abide by the negotiation, negating the real potential for drawn-out litigation, which only serves to delay at great cost to EPA and the public, additional gains in public health protection. Unfortunately, EPA denied this request and instead elected to charge the NDWAC with developing recommendations for revisions, although in the charge EPA urged the workgroup to strive for

**BOARD OF DIRECTORS**

| <b>PRESIDENT</b>   | <b>VICE PRESIDENT</b>   | <b>TREASURER</b>                                       | <b>SECRETARY</b>  | <b>CHIEF EXECUTIVE OFFICER</b>                             |
|--|---|--|---|--|
| John Entsminger<br>Las Vegas Valley Water Dist.          | Yvonne Forrest<br>Houston Water                                     | Jeffrey Szabo<br>Suffolk County Water Authority        | vacant  | Tom Dobbins  |
| Julie Anderson<br>Denver Water                           | Jeff Brown<br>Onondaga County Water Authority                       | Andrea Cheng<br>Chicago Department of Water Management | Ghassan Korban<br>Sewerage and Water Board of New Orleans             | Holly Rosenthal<br>Phoenix Water Services Department       |
| Mike Armstrong<br>WaterOne                               | Chris Browning<br>Oklahoma City Water Utilities Trust               | Scott Dewhirst<br>Tacoma Water                         | Yann Le Gouellec<br>Newport News Waterworks                           | Brian Steglitz<br>Ann Arbor Water                          |
| Verna Arnette<br>Beaufort-Jasper Water & Sewer Authority | Edward Campbell<br>Portland Water Bureau                            | Calvin Farr<br>Prince William County Service Authority | Angela Licata<br>New York City Department of Environmental Protection | John P. Sullivan, Jr.<br>Boston Water and Sewer Commission |
| Tad Bohannon<br>Central Arkansas Water                   | Shane Chapman<br>Metropolitan Water District of Southern California | Randy E. Hayman<br>Philadelphia Water Department       | Lindsey Rechtin<br>Northern Kentucky Water District                   | Todd Swingle<br>Toho Water                                 |
|  |   |  |   | Timothy Thomure<br>Tucson Water                            |
|  |   |  |   | Paul Vojtek<br>Erie Water Works                            |

consensus recommendations, which is a good thing, as consensus recommendations provide a clearer pathway for EPA to act upon in developing a proposed rule.

AMWA was hoping for more public participation in the process. Key stakeholders were not able to participate in the Working group meetings beyond watching and did not have access to the vast majority of the materials made available to working group members through the SharePoint site. Additionally, members of the public could not see important workgroup interactions, like who was raising their hands during consensus votes and what was being said in the zoom chat.

A lack of current and conclusive data has resulted in at least two draft recommendations addressing data gaps. AMWA believes that any future process for MDBP improvements would benefit from this data to generate robust science-based recommendations. It is difficult for EPA to propose a regulation based on individuals' assumptions, unsupported by data, that an intervention will have a positive effect on water quality. Individuals with the ability to help on this front, the technical analysts, voluntarily committed their time to assist with the process but were restricted in what they could or could not say to Working Group members.

During workgroup discussions, workgroup members remarked that better enforcement of the current MDBP rules would go a long way to further protecting public health. Therefore, AMWA urges NDWAC to encourage EPA to provide the states the tools and resources they need to enforce the current rules more effectively.

As these recommendations approach their final form, AMWA hopes that support for realistic interventions based on sound science will be unanimous, and urges working group members to include scientific reasonings and support as they work to finalize the recommendations.

Previous working groups on topics like the CCR have produced reports with consensus and non-consensus recommendations that make it difficult for EPA to act on. AMWA also urges the NDWAC to focus its efforts on the consensus recommendations that come from the working group. NDWAC can then provide EPA with actionable interventions that are based on the most up-to-date data and supported by all the stakeholders represented on the working group. Given the data gaps that still exist, EPA would still have to put in considerable analysis but there is at least agreement that those recommendations are a path forward to protect public health.

AMWA thanks the NDWAC for allowing it to provide these comments. If you have any additional questions, please reach out to Brian Redder ([Redder@amwa.net](mailto:Redder@amwa.net)), AMWA's Manager of Regulatory and Scientific Affairs.

Sincerely,



Tom Dobbins  
Chief Executive Officer