

Consideration of Potential MDBP Rule Revisions

Request for Working Group Formation to Inform NDWAC Advice and Recommendations

Office of Ground Water and Drinking Water
December 1, 2021



Presentation Overview

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- Process for working group formation
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Purpose

- EPA is seeking consensus recommendations from the NDWAC that would improve public health protection provided by the regulations, better assure the regulations equitably protect consumers' health, particularly disadvantaged communities, and be implementable.
- To support the work of the NDWAC, EPA is asking the council to form a working group (the Microbial and Disinfection Byproducts [MDBP] Rule Revisions Working Group).



National Drinking Water Advisory Council Charge

- EPA is providing a new charge to the NDWAC requesting that the council provide the agency with consensus advice and recommendations on key issues related to potential revisions to MDBP rules.
- The MDBP Rule Revisions Working Group is charged with considering issues related to potential rule revisions.
- EPA plans to provide targeted technical analysis support to help ensure equitable technical expertise for all perspectives represented on the working group.





Process for Working Group Formation

- EPA seeks perspectives from state officials and tribal officials, drinking water system operators from systems of all sizes, and environmental and public interest representatives
 - May include NDWAC and non-NDWAC members
- Request membership nominations from the NDWAC
 - No more than seven NDWAC members on Working Group
- Federal Register Notice (FRN) published on November 12, 2021, to solicit nominations of other qualified individuals
 - Nominations should be submitted no later than December 13, 2021

Process for Working Group Formation (cont.)

- Criteria to be used in evaluating nominees includes:
 - Demonstrated experience with drinking water issues at the national, state, or local levels, particularly with knowledge of the MDBP rules;
 - Excellent interpersonal, oral, and written communication and consensus building skills;
 - Willingness to commit time to the working group and demonstrated ability to work constructively on committees; and
 - Background that would help members contribute to the diversity of expertise, experience, and perspectives on the working group, e.g., geographic, economic, social, cultural, educational backgrounds, professional affiliations, and other considerations.

Anticipated Working Group Schedule

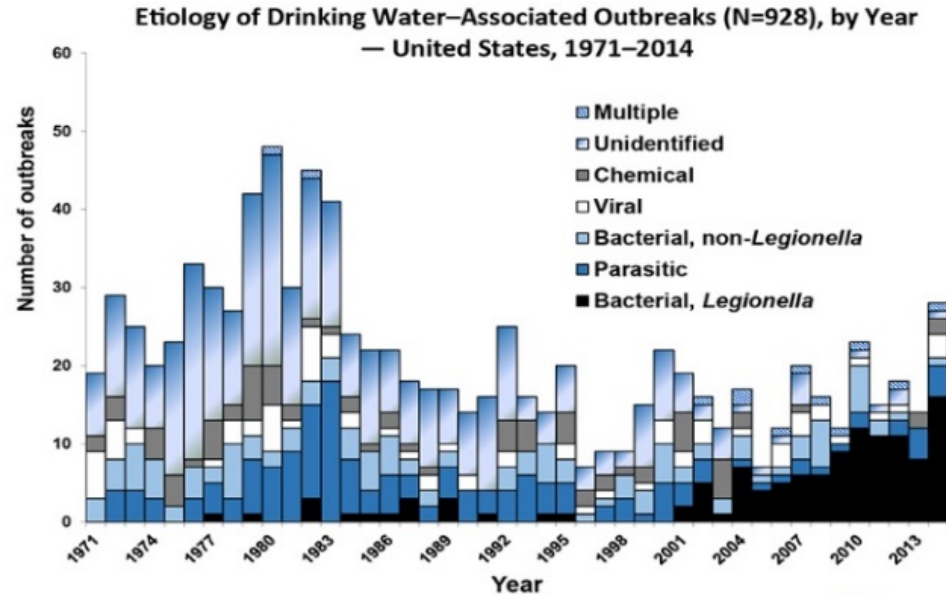
- MDBP Rule Revisions Working Group meetings are anticipated to be held from Spring 2022 through Summer 2023.
- All meetings will be open to the public to observe and there will be opportunity to provide comments.
- Meetings will be held on a monthly/bimonthly basis and focus on specific MDBP topic areas.
- A total of 8-15 meetings are expected to be held.

Background: Six-Year Review 3

- In January 2017, EPA announced the review results for the Agency's third Six-Year Review (Six-Year Review 3) of NDPWRs.
- Based on the Agency's review of newly available data, information, and technologies, EPA identified the following eight NPDWRs as candidates for revision.
- Chlorite, *Cryptosporidium*, Haloacetic acids, heterotrophic bacteria, *Giardia lamblia*, *Legionella*, Total Trihalomethanes, and viruses.
- These eight NPDWRs are included in the following MDBP rules:
 - Stage 1 and Stage 2 Disinfectants and Disinfection Byproduct Rules (DBPRs)
 - Surface Water Treatment Rule (SWTR)
 - Interim Enhanced Surface Water Treatment Rule (IESWTR)
 - Long-Term 1 Enhanced Surface Water Treatment Rule (LT1)

Background: Microbial Contaminants

- Purpose of SWTRs: Reduce disease incidence associated with viruses and pathogens, particularly *Cryptosporidium* and *Giardia*, in drinking water.
- There has been a decrease in waterborne gastrointestinal illness in the U.S., but diseases related to opportunistic pathogens that may reside in biofilms (including *Legionella*) have increased.
- *Legionella* is the most common cause of reported drinking water-associated outbreaks in the U.S.



Background: Microbial Contaminants (cont.)

- While most documented cases of Legionnaires Disease are related to growth within building water systems, the water quality entering buildings can impact opportunistic pathogen growth within buildings.
 - Contributing factors from municipal supplies can include inadequate residuals, nutrient availability, high water age, infrastructure condition, and sediment accumulation.
- Opportunistic pathogens may enter the distribution system and later grow in low flow areas of the distribution system and building water systems.
- Disinfection can address some of these microbial risks but may increase risks from disinfection byproducts (DBPs).
- Some risks remain related to fecal pathogens which may warrant additional attention.



Background: DBPs

- Purpose of DBPRs: Reduce drinking water exposure to DBPs which can form in water when disinfectants used to control microbial pathogens react with natural organic matter found in source water. If consumed in excess of EPA's standard over many years, DBPs may increase health risks.
- Different DBPs in treated water may potentially pose different health risks (including cancer, developmental, etc.).
- Reducing a group of DBPs by changing disinfectant types can lead to an increase in the formation of other DBPs.
- Considerations for minimizing the overall MDBP risks in treated water should include:
 - Balancing risks:
 - Microbial contaminant vs. DBP risks
 - Regulated DBPs vs. unregulated DBPs
 - Maximizing reduction of formation potential of DBP mixtures



Background: DBPs (cont.)

- Factors relevant to potential revisions of DBP rules:
 - Despite significant reductions in exposure over the past several decades, a substantial portion of bladder cancer cases in the U.S. may still be attributed to exposure to DBPs found in PWSs.
 - Changes in DBP precursor types and levels (e.g., organic matter, bromide) may be contributing to increased risks from DBPs.
 - The occurrence of brominated haloacetic acids may be leading to increased risks from DBPs.
 - Consecutive systems have a continuing challenge with meeting DBPR maximum contaminant level requirements.
- Controlling overall DBP formation while providing adequate protection from pathogens is a complex task.

Topics Under Consideration



- Opportunistic Pathogens
- Disinfectant Residuals
- Regulated and Unregulated DBPs
- Consecutive and Small Systems
- Distribution System Water Quality Management

Topics Under Consideration (cont.)

- Finished Water Storage Facilities
- Source Water Approach
- DBP Precursor Removal
- Sanitary Surveys
- Water Safety Plans
- Mischaracterized ground water under the direct influence of surface water (GWUDI) systems



Public Engagements and Input

- EPA held an initial virtual public meeting in October 2020, followed by six virtual meetings from May to November 2021 to solicit broad input and information on MDBPs in drinking water.
- Each meeting in 2021 focused on specific topics identified through current public feedback and new information.
- EPA is considering the information discussed at all public meetings, NDWAC consultation, and other stakeholder engagements, along with any public comments, in its determination on how to proceed with any rule revisions.
- Public can continue to provide written input via public docket.
 - Docket ID Number: EPA-HQ-OW-2020-0486 at www.regulations.gov
- EPA will provide the NDWAC and working group with the information gathered through the public docket, recent virtual public meetings, and results of analyses conducted to inform deliberations.

Timeline and Next Steps

- EPA has agreed to the following deadlines:
 - Rule proposal or a formal decision not to propose amended rules: by July 31, 2024*. EPA may delay proposal until July 31, 2025, as needed.
 - Final Agency Action: Final rule or withdraw proposal by September 30, 2027*. EPA may delay proposal until September 30, 2028, as needed.



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