

**STATE WATER RESOURCES CONTROL BOARD  
BOARD MEETING SESSION – DIVISION OF DRINKING WATER  
FEBRUARY 19, 2025**

**ITEM 3**

**SUBJECT**

CONSIDERATION OF A PROPOSED RESOLUTION ADOPTING THE PRIORITIZATION OF DRINKING WATER REGULATIONS DEVELOPMENT FOR CALENDAR YEAR 2025.

**DISCUSSION**

All public water systems, as defined in Health and Safety Code (HSC) section 116275, are subject to regulations adopted by the United States Environmental Protection Agency (U.S. EPA) under the Safe Drinking Water Act of 1974, as amended (42 U.S.C. 300f et seq.), as well as by the State Water Resources Control Board (State Water Board) under the California Safe Drinking Water Act (Health & Safety Code, § 116270 et seq.).

California has been granted primary enforcement responsibility (primacy) by U.S. EPA for public water systems in California. Federal laws and regulations require that California, in order to receive and maintain primacy, promulgate regulations for California that are no less stringent than the federal regulations. In addition, HSC section 116270 states that it is the intent of the California State Legislature to establish a program more protective of public health than minimum federal requirements.

The State Water Board is tasked with adopting drinking water regulations and recycled water regulations associated with the protection of public health. These regulations include primary drinking water standards (e.g., maximum contaminant levels (MCLs), treatment techniques, monitoring and reporting requirements) and any other standards related to providing safe drinking water (e.g., operator requirements, design standards, primary and secondary drinking water standards, pipe separation standards).

**Establishing Priorities for Regulatory Development Work**

The prioritization of the regulatory development work depends on several factors, including:

1. The enhancement of public health achieved by new or revised regulatory requirements or MCLs;
2. New or revised federal drinking water regulations;
3. Any statutory mandate to adopt a regulation within a specific timeframe; and

4. Other priorities and staffing resources available for the development and implementation of regulations.

## **Evaluation of Current Priorities for Regulatory Development**

### **1. Maximum Contaminant Levels**

#### **a. PFAS**

Perfluoro-octanoic acid (PFOA) and perfluoro-octane sulfonic acid (PFOS) are part of a group of chemicals known as per- and polyfluoroalkyl substances (PFAS) that have been manufactured since the 1940s and used in industrial and consumer products such as fire-fighting foam, nonstick cookware, food packaging, and stain- and water-repellant household products. The Division of Drinking Water (DDW) issued interim notification and response levels for PFOA and PFOS in July 2018. In August 2019, based on a recommendation from the Office of Environmental Health Hazard Assessment (OEHHA), DDW updated the notification levels and requested that OEHHA develop public health goals (PHGs) for these compounds. In February 2020, DDW lowered the response levels for PFOA and PFOS, requested that OEHHA prepare PHGs for PFOA and PFOS, and requested that OEHHA consider making notification level recommendations for seven other PFAS compounds found through water system monitoring. OEHHA issued draft PHGs for PFOA and PFOS in July 2021 and closed the corresponding public comment period in October 2021. An extended comment period on the second public review draft closed in August 2023. In March 2023, U.S. EPA announced proposed primary drinking water standards for PFOA and PFOS and a hazard index for the combination of perfluorononanoic acid (PFNA), perfluorohexane sulfonic acid (PFHxS), perfluorobutane sulfonic acid (PFBS), and hexafluoropropylene oxide dimer acid (HFPO-DA or GenX). DDW continues to investigate the extent of contamination of these and other PFAS materials in drinking water sources throughout the state. This information will be used to determine whether DDW should request OEHHA to develop PHGs for additional PFAS compounds and will inform future rulemaking. On April 5, 2024, OEHHA adopted final cancer-based PHGs and noncancer-based health protective concentrations (HPC) for PFOA and PFOS. On April 10, 2024, U.S. EPA issued final primary drinking water standards for PFOA, PFOS, PFNA, PFHxS, PFBS, and HFPO-DA or GenX. On September 18, 2024, DDW received OEHHA's perfluorohexanoic acid (PFHxA) notification level recommendation of 1 µg/l based on thyroid and nasal cavity toxicity.

#### **b. Disinfection Byproducts**

Disinfection byproducts (DBPs) are formed when disinfectants react with naturally-occurring materials in the water to form byproducts, including trihalomethanes (THMs), haloacetic acids (HAA5), chlorite, and bromate. California currently regulates THMs under an MCL of 80 µg/l for the sum of bromoform, chloroform, dibromochloromethane, and bromodichloromethane. Haloacetic acids are currently regulated under an MCL of 60 µg/l for the sum of

monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid. OEHHA revised the THM public health goal in February 2020, establishing individual PHGs for each of the component THMs, based on cancer effects. In December 2022, OEHHA established PHGs for individual haloacetic acids, based on muscular degeneration for monobromoacetic acid, systemic toxicity for monochloroacetic acid, and carcinogenicity for dichloroacetic acid, trichloroacetic acid, and dibromoacetic acid.

c. **Arsenic**

Arsenic is a naturally occurring element found in soil and mineral deposits, wood preservatives, agricultural pesticides and feed additives, sealed ant bait, and industrial products such as pyrotechnics, antifouling paints, dye and soaps, pharmaceutical compounds, ceramics, alloys, and battery plates. The current arsenic MCL and detection limit for purposes of reporting (DLR) are 10 µg/l and 2 µg/l, respectively. OEHHA has issued a PHG of 0.004 µg/l, based on bladder cancer, and a noncancer health protective value (HPV) of 0.9 µg/l, based on cerebrovascular disease. The U.S. EPA arsenic MCL goal (MCLG) is zero.

d. **NDMA**

N-nitrosodimethylamine (NDMA) is part of a larger chemical group known as nitrosamines. NDMA forms during disinfection processes and is formerly used in rocket fuel production. While there is currently no state or federal MCL for NDMA, there are established notification and response levels of 0.01 µg/l and 0.3 µg/l, respectively. The NDMA PHG was issued in 2006 and is set at 0.003 µg/l, based on carcinogenicity; it is currently in review.

e. **Styrene**

Styrene is an organic chemical that is widely used to make rubber and plastics. The current styrene MCL and DLR are 100 µg/l and 0.5 µg/l, respectively. OEHHA has issued a PHG of 0.5 µg/l, based on carcinogenicity, and identified a noncancer HPV of 4 µg/l. U.S. EPA's MCLG for styrene is 100 µg/l.

f. **Cadmium and Mercury**

Cadmium is a naturally occurring element found in soil and mineral deposits, metal plating discharges, runoff from waste batteries, plastic pigments, and galvanized pipe corrosion. The current cadmium MCL and DLR are 5 µg/l and 1 µg/l, respectively. OEHHA has issued a PHG of 0.04 µg/l, based on kidney toxicity. U.S. EPA's MCLG for cadmium is 5 µg/l. Mercury is a naturally occurring element found in soil and mineral deposits, refinery and factory discharges, and landfill and cropland runoff. The current mercury MCL and DLR are 2 µg/l and 1 µg/l, respectively. OEHHA has issued a PHG of 1.2 µg/l based on kidney toxicity.

2. **Onsite Treated Nonpotable Water Systems**

Effective January 2019, Water Code section 13558 *et seq.* requires the adoption of regulations for risk-based water quality standards for on-site treatment and re-use of non-potable water for non-potable end uses in multi-family residential, commercial, and mixed-use buildings by December 2022. Stakeholder outreach

began in 2021 and is ongoing. Publication of a notice of proposed rulemaking is expected first quarter 2025.

### **3. Lead and Copper Rule (LCR) and Revisions**

- a. U.S. EPA issued revisions to the Lead and Copper Rule (LCRR) on January 15, 2021, but delayed effective dates while the new administration reviewed the rule. On January 16, 2021, U.S. EPA provided notice that it had completed its review, was leaving the LCRR intact, but would propose further improvements in a separate rulemaking to be completed by October 16, 2024 (Lead and Copper Rule Improvements [LCRI]). On November 30, 2023, U.S. EPA announced its proposed LCRI regulations. On October 9, 2024, U.S. EPA issued a final rule requiring drinking water systems to identify and replace lead pipes within 10 years. The LCRI also requires more rigorous testing of drinking water and a lower threshold requiring communities to take action to protect people from lead exposure in water. In addition, the final rule improves communication within communities so that families are better informed about the risk of lead in drinking water, the location of lead pipes, and plans for replacing them.
- b. Staff will track LCRR and LCRI requirements, including water systems inventories. Water system service line inventory summaries will be posted spring 2025.
- c. Assembly Bill 2370 (Chapter 676, Statutes of 2018) added section 1597.16 to the Health and Safety Code, requiring licensed child day care centers located in buildings constructed before 2010 to conduct initial sampling of drinking water for lead contamination between January 1, 2020, and January 1, 2023, and to repeat lead sampling every five years from the date of the initial test. The analytical results of these tests are required to be submitted electronically to the State Water Board. If the results show elevated levels of lead, the State Water Board must report the results to the Department of Social Services (DSS).

### **4. Detection Limits for Purposes of Reporting (DLRs)**

DDW is continuing work to evaluate the potential for reporting concentrations closer to PHGs, beginning with metals. As lower reporting levels are determined to be feasible, staff proposes revising DLRs to allow occurrence data collection to better inform the MCL review process. A preliminary proposal based on the results of surveys of Environmental Laboratory Accreditation Program (ELAP) certified laboratories was presented at a November 2022 workshop. A courtesy pre-publication Department of Finance review was completed in November 2023. Laboratory surveys regarding costs and capabilities for analysis of organic compounds are anticipated to start in 2025, following release of the metal DLRs notice of proposed rulemaking.

### **5. Notification and Response Levels**

#### **a. PFAS**

California has established notification and response levels for perfluoro-octanoic acid (PFOA), perfluoro-octane sulfonic acid (PFOS), perfluoro-butane sulfonic

acid (PFBS), and perfluorohexane sulfonic acid (PFHxS) and has requested notification level recommendations for an additional five PFAS compounds. Adverse health effects associated with PFAS vary widely across the chemical group. On September 18, 2024, OEHHA provided a notification level recommendation for PFHxA of 1 µg/l.

**b. Manganese (revision)**

Manganese is a naturally occurring element found in soil and mineral deposits. California currently has a secondary maximum contaminant level of 50 µg/l based on consumer acceptance, and notification and response levels of 0.5 mg/l and 5 mg/l, respectively. Manganese is known to cause neurotoxicity, with recent studies indicating it as a developmental toxin. DDW provided notice of proposed revised notification and response levels of 20 µg/l and 200 µg/l, respectively, on February 16, 2023, with an informational item presented at the March 21, 2023, Board meeting.

**c. Harmful Algal Bloom/Cyanotoxins**

Harmful algal blooms—and the cyanotoxins they produce—are overgrowths of algae caused by a combination of sunlight, slow-moving water, and nutrients. In February 2021, DDW requested that OEHHA develop notification level recommendations for the cyanotoxins microcystins and cylindrospermopsin and assess data for anatoxin-a and saxitoxins and make notification level 6 recommendations if warranted. In May 2021, OEHHA provided recommendations for a short-term exposure anatoxin-a notification level, interim short-term exposure notification levels for microcystins, and cylindrospermopsin, and an interim acute (less than one day) exposure for saxitoxins. In June 2022, OEHHA provided notification level recommendations for anatoxin-a, microcystins, and cylindrospermopsin based on acute exposure. Saxitoxins proposal delayed due to lack of validated analytical method. Proposed notification and response levels for anatoxin-a, microcystins, and cylindrospermopsin are projected for summer 2025, with analytical method validation for saxitoxins underway.

**6. Primacy Package Approvals**

California currently has a backlog of about 17 primary enforcement authority (primacy) packages, with some dating back to pre-1997. Reduction of this backlog is a high priority for U.S. EPA. Primacy packages elements pertaining to Public Water System Definition, Public Notification Rule, Revised Total Coliform Rule (RTCR), Groundwater Rule, and Consumer Confidence Rule are underway.

**7. Electronic Reporting of Drinking Water Quality Data**

DDW is developing revised regulations requiring electronic submittal of drinking water analytical results to be reported in a format compliant with U.S. EPA's Cross Media Electronic Reporting Regulation (CROMERR). The proposed regulations would revise the format and form for reporting electronically delivered water quality data. Proposed revisions to the existing regulation are projected for State Water Board consideration in 2025.

## 8. **Quinquennial Maximum Contaminant Levels Review**

HSC section 116365, subdivision (a) requires the State Water Board to set primary drinking water standards as close to the corresponding public health goal as is technologically and economically feasible, placing primary emphasis on the protection of public health.

HSC section 116365, subdivision (g) requires review of each primary drinking water standard at least once every five years. If changes in technology or treatment techniques permit materially greater protection of public health, the State Water Board must amend the standard. Existing MCLs were last reviewed in 2018. The results of that review are available at the State Water Board's [MCL Review Process webpage](#).

In conducting the 2018 review, staff found that DLRs at concentrations greater than the corresponding PHGs limits the ability to evaluate public exposure to contaminants at concentrations greater than the PHG but less than current DLR, hindering evaluations of whether it is technologically feasible to establish MCLs closer to the PHGs. Thirty-three current MCLs have associated DLRs set at concentrations greater than their corresponding PHGs. A discussion of proposed work on lowering DLRs for metals is provided above.

In February 2020, OEHHA issued final revised PHGs for individual trihalomethanes bromoform, chloroform, bromodichloromethane, and dibromochloromethane. Final PHGs for five haloacetic acids—monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid (collectively, HAA5)—were issued in December 2022. Both trihalomethanes and haloacetic acids are disinfection byproducts; MCL revisions for all nine of these contaminants will likely be grouped for concurrent, coordinated development. A draft 1,4-dioxane PHG is also expected to be issued for public comment in 2025. An analysis of potential for prioritization of MCL revision based on race and ethnicity was completed in 2024.

## 9. **Financial Assurance**

HSC section 116375, subdivision (g) requires the State Water Board to develop regulations for minimum acceptable financial assurances that a public water system shall be required to submit as a demonstration of its capability to provide for the ongoing operation, maintenance, and upgrading of public water systems, including monitoring, treatment, and contingencies. DDW is engaged in preliminary data gathering to support regulation development.

## **POLICY ISSUE**

Should the State Water Board adopt the proposed Resolution setting priorities for and guiding staff development of regulations?

**FISCAL IMPACT**

There is no fiscal impact, and no funds are being requested.

**REGIONAL BOARD IMPACT**

None.

**STAFF RECOMMENDATION**

The State Water Board should adopt the proposed Resolution.