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October 16, 2023

TO: Each Supervisor

FROM: Barbara Ferrer,
Director of Public Health

PER-AND-POLY FLUOROALKYL SUBSTANCES IN LOS ANGELES COUNTY WATER SYSTEMS (ITEM NO. 26, BOARD AGENDA OF JULY 25, 2023)

This report is in response to the July 25, 2023, motion by the Board directing the Department of Public Health (Public Health), in consultation with the Department of Public Works (DPW), the Chief Sustainability Office, and Chief Executive Office - Legislative Affairs and Intergovernmental Relations (CEO-LAIR) to engage with the State Water Resources Control Board, to report back in writing in 90 days on:

1. Indexing and cataloging which water systems are/are not currently testing for PFAS in the 206 community water systems in the County, including small water systems in the county.
2. Cataloging which PFAS the water systems currently are testing for; and
3. Exploring options to assist and encourage large, medium, and small water systems to increase PFAS testing.

Indexing and cataloging which water systems are/are not currently testing for PFAS in the 202 community water systems in the County, including small water systems in the county.

Perfluoroalkyl and polyfluoroalkyl substances (collectively, PFAS) are manmade substances that have been synthesized for water and oil resistance and tend to accumulate in groundwater. They have been used extensively in consumer products such as carpets, clothing, fabrics for furniture, paper packaging for food, and other materials (e.g., cookware) designed to be waterproof, stain-resistant, or non-stick. In addition, they have been used in fire-retarding foam and various industrial processes. Scientific findings indicate that exposure to PFAS in tap water over certain levels may result in adverse health effects including hepatotoxicity, immunotoxicity, thyroid toxicity, reproductive toxicity, and cancer (pancreatic and liver).

California Health and Safety Code, Section 116378 authorizes the State Water Resources Control Board, Division of Drinking Water (SWRCB) to order public water systems to monitor for PFAS. The current General Order (Attachment I) was issued by SWRCB on October 31, 2022, requiring community and non-transient, non-community water systems in Los Angeles County to monitor for PFAS substances. Out of 202 community water systems in LA County, 76 community water systems were ordered to perform the PFAS testing. In addition, 5 non-transient, non-community water systems were also ordered to perform the PFAS testing. The General Order requires that PFAS sample collection and analysis be conducted quarterly, beginning with the first calendar quarter of 2023, and continuing until further notice. Sample analysis is to be performed using EPA Method 533.

The selection criteria for choosing water systems for the issuance of PFAS monitoring orders were based on several conditions. These include the location of water systems' sources nearby:

- Known detections,
- Known possible contamination of the area due to PFAS usage,
- Airports with known and possible detection,
- Department of Defense sites,

Refer to Attachment II for a complete list of community water systems including small water systems in Los Angeles County. The public water systems (76 community and 5 non-transient, non-community) that are currently testing for PFAS are highlighted in yellow. In addition, the LA County Waterworks' systems that began voluntary testing for PFAS are highlighted in green.

Catalogue which PFAS the water systems currently are testing for

At present, the EPA has taken steps towards regulating the amount of PFAS in drinking water, however, today there is no established Federal and/or State drinking water standards (known as a maximum contaminant level or "MCL") for any PFAS substances. While the EPA has begun the rigorous and time-consuming process for the eventual establishment of an MCL for certain PFAS chemicals, this process is still underway.

However, the SWRCB's Division of Drinking Water has established preliminary notification levels (NL) and response levels (RL) for four PFAS chemicals. Notification levels are health-based advisory concentration levels established for contaminants in drinking water for which maximum contaminant levels have not been established. Notification levels are established as precautionary measures for contaminants that may be considered candidates for the establishment of maximum contaminant levels but have not yet undergone or completed the regulatory standard-setting process.

A response level (RL) is set higher than a notification level and represents a recommended chemical concentration level at which water systems must take an action, from a range of potential options. Water systems that detect levels of PFAS substances that exceeded the response level are recommended to take the water source out of service. If the water system is unable to take a source out of service, the water system is recommended to notify the local governing body (i.e., city council, board of supervisors, or both) that water is being provided that exceeds the chemical's

response level, the reasons for continued use and notify the water system’s customers of the exceedance of the response level, the level of at which source removal is recommended, and the reason for continued use of the source.

Current water testing can detect 25 different PFAS chemicals in a potable water source, of which 4 have established Notification Levels (NL) and Response Levels (RL). The US EPA is proposing to establish legally enforceable Maximum Contaminant Levels for six PFAS chemicals including four with established NLs and RLs. The chart below lists these six PFAS chemicals and the thresholds for each level.

Per- and Polyfluoroalkyl Substances (PFAS)	Notification Level (NL) nanograms per liter (ng/L) or parts per trillion (ppt)	Response Level (RL) nanograms per liter (ng/L) or parts per trillion (ppt)	Proposed Maximum Contaminant Level (MCL) nanograms per liter (ng/L) or parts per trillion (ppt)
Perfluorooctanoic acid (PFOA)	5.1	10	4
Perfluorooctane sulfonic acid (PFOS)	6.5	40	4
Perfluorobutane sulfonic acid (PFBS)	500	5000	Hazard Index 1 (unitless)
Perfluorohexane sulfonic acid (PFHxS)	3	20	
Perfluorononanoic acid (PFNA)	Requested	Requested	
HFPO-DA			

The Hazard Index is a tool used to evaluate potential health risks from exposure to chemical mixtures and will be discussed further in the 120-day report back letter.

Refer to Attachment III for a summary of the remaining 19 PFAS chemicals detectable by current water source testing, including 4 additional PFAS chemicals for which the EPA is considering requesting notification and response levels be established.

Explore options to assist and encourage large, medium, and small water systems to increase PFAS testing

Find below options the County could pursue to assist and encourage large, medium, and small water systems to increase PFAS testing:

- Provide educational materials and broadcast public awareness of PFAS health effects.
- Introduce Public PFAS Tools (<https://echo.epa.gov/trends/pfas-tools>) - an application that integrates data on PFAS reporting, testing, and occurrences in communities. The PFAS Analytic Tools make it easier to evaluate the collective PFAS information from 11 different databases that include relevant information. Consolidating all these data sources in one searchable platform will help the public, researchers, and other stakeholders better understand potential PFAS sources in their communities, including potential exposure pathways in communities with environmental justice concerns.
- Provide Health Advisories to water systems about the negative human health risks associated with PFAS to encourage them to initiate voluntary testing.
- Refer water systems to funding sources to assist with PFAS monitoring:
 - a. PFAS Funding – SWRCB funding for technical and financial assistance to drinking water systems to address PFAS in their drinking water supply.
 - b. EPA’s Emerging Contaminants (EC) in Small and Disadvantaged Communities Grant (SDC)

On September 20, 2023, Public Health had a meeting with representatives of the Chief Sustainability Office (CSO), CEO-LAIR, and the Department of Public Works (DPW) to explore options to assist and encourage water systems to increase PFAS testing. The representative of the CEO-LAIR indicated that they would explore availability of PFAS funding options to assist public water systems. DPW representatives indicated that they have taken a proactive approach and decided to perform PFAS testing for all water sources of their water systems. DPW also indicated that the Main San Gabriel Basin also took action to collect PFAS sample for each of their wells.

All PFAS testing results shall be reported to the SWRCB-Division of Drinking Water and data shall be available to the public through the Geo Tracker PFAS Map: https://geotracker.waterboards.ca.gov/map/pfas_map.

Next Steps

The Department will report back by November 22, 2023, regarding the following tasks:

- a) Determine the status of the Federal and State PFAS Maximum Contaminant Level (MCL) standards and make recommendations to strengthen regulations upon establishment of MCL standards, including any potential gaps in proposed regulations; and
- b) Determine if testing standards and notification processes can be enhanced through regular monitoring by all water systems;
- c) Determine whether or not concerns specific to County communities are reflected in State and federal rulemaking, and provide the Board with updates on these processes on an annual basis until standards are adopted;
- d) Identify and advocate for State and federal funding opportunities as appropriate to support implementation of treatment system retrofits to address PFAS in drinking water.

Please contact me if you have any questions or would like additional information.

Attachments

BF:lf

c: Chief Executive Office
Executive Officer, Board of Supervisors
Chief Sustainability Office
Public Works

**STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER**

ORDER DW 2022-0001-DDW

**GENERAL ORDER REQUIRING MONITORING FOR PER AND
POLYFLUOROALKYL SUBSTANCES
*CALIFORNIA HEALTH AND SAFETY CODE SECTION 116378***

The State Water Resources Control Board (“State Water Board” or “Board”), acting by and through its Division of Drinking Water (“Division”), hereby issues General Order No. DW 2022-0001-DDW (hereinafter “Order”) pursuant to section 116378 of the Health and Safety Code, as set forth below:

1. WHEREAS, Assembly Bill 756 (2019-Garcia), approved by the Governor on July 31, 2019, and codified as Health and Safety Code section 116378, authorizes the State Water Board to require public water systems to monitor for per and polyfluoroalkyl substances (“PFAS”), in accordance with conditions set by the Board; and
2. WHEREAS, Health and Safety Code section 116378, subdivision (a) requires a laboratory that has accreditation or certification pursuant to Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code to perform the analysis of any material required by an order issued pursuant to Health and Safety Code section 116378; and
3. WHEREAS, an order issued pursuant to Health and Safety Code section 116378 may apply to an individual public water system, specific groups of water systems, or to all public water systems; and

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4. WHEREAS, pursuant to Health and Safety Code section 116378, Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code does not apply to an order issued to groups of public water systems or all public water systems; and
5. WHEREAS, Health and Safety Code section 116378, subdivision (c)(1) states that if monitoring results in a confirmed detection, then a community water system or a nontransient-noncommunity water system must report that detection in the annual consumer confidence report. Section 116378, subdivision (c)(1) further states that unless the water source is taken out of use or new data becomes available to show that the applicable response level is no longer being exceeded, the community or nontransient-noncommunity water system will provide notice of the exceedance of the response level in the water system's consumer confidence report; and
6. WHEREAS, Health and Safety Code section 116378, subdivision (c)(2) states that in addition to the notice required by subdivision (c)(1), for PFAS with notification levels, a community water system or nontransient-noncommunity water system must report a detection which exceeds the notification level as required by Health and Safety Code section 116455; and
7. WHEREAS, Health and Safety Code section 116378, subdivision (c)(3) states that for PFAS with response levels where detected levels of a substance exceed the response level, a community water system or nontransient-noncommunity public water system must take the water source out of use, provide treatment or blending of the source, or provide public notification as specified therein; and
8. WHEREAS, among other things, Health and Safety Code section 116455 requires that within 30 days of a confirmed detection of a contaminant found in drinking water delivered by a public water system for human consumption that is in excess of a notification level set by the State Water Board, the public water

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system which supplies water directly to the end user must notify the public water system's governing body and the governing body of any local agency whose jurisdiction includes areas supplied with drinking water by the water system. A local agency means a city or county. If the water system is a water company regulated by the California Public Utilities Commission ("Commission"), then the water system must also notify the Commission; and

9. WHEREAS, on August 22, 2019, pursuant to Health and Safety Code section 116455, the State Water Board: (1) updated the notification level for perfluorooctanoic acid ("PFOA") from 0.000014 mg/L to 0.0000051 mg/L; (2) updated the notification level for perfluorooctanesulfonic acid ("PFOS") from 0.000013 mg/L to 0.0000065 mg/L ; and
10. WHEREAS, on August 22, 2019, the Division requested the development of Public Health Goals (PHG) from the Office of Environmental Health and Hazard Assessment (OEHHA) for PFOA and PFOS; and
11. WHEREAS, on February 6, 2020, pursuant to Health and Safety Code section 116455, the State Water Board: (1) changed the response levels from a total combined PFOA and PFOS concentration of 0.000070 mg/l to 0.000010 mg/L for PFOA and 0.000040 mg/L for PFOS; and
12. WHEREAS, on March 5, 2021, pursuant to Health and Safety Code section 116455, the State Water Board established a perfluorobutane sulfonic acid (PFBS) notification level of 0.0005 mg/L and response level of 0.005 mg/L; and
13. WHEREAS, on October 31, 2022, pursuant to Health and Safety Code section 116455, the State Water Board established a perfluorohexane sulfonic acid (PFHxS) notification level of 0.000003 mg/L and response level of 0.00002 mg/L; and
14. WHEREAS, the State Water Board previously issued Orders DW 2020-0003 and DW 2021-0001 to various parties to monitor for PFAS; and

ORDER DW 2022-0001-DDW

15. WHEREAS, the State Water Board intends, through this Order, to update the monitoring requirements for PFAS, based on the results of monitoring to date; and

16. WHEREAS, by and through this Order, the State Water Board is exercising its authority under Health and Safety Code section 116378 to require those public water systems listed in Exhibit A to this Order to monitor for PFAS in accordance with the conditions set forth below.

THEREFORE, the State Water Board, by and through its Division of Drinking Water, hereby expressly and completely rescinds Order DW 2021-0001 and Order DW 2020-0003 in their entirety and orders that the public water systems listed in Exhibit A to this Order, and if not listed, receives at a later date a Notice of Applicability, monitor for PFAS as follows:

1. On or before March 31st, 2023, collect a sample from the sources listed in Exhibit A to be analyzed for PFAS. Samples must be collected at least once each calendar quarter thereafter.
2. Public water systems that receive a permit amendment from DDW to treat for PFAS which specifies on-going PFAS monitoring requirements may submit a request to their DDW District Engineer for a modification or waiver to the monitoring required under this Order.
3. Samples collected must be analyzed using a laboratory accredited by the California Environmental Laboratory Accreditation Program (ELAP) for analysis of PFAS using EPA Method 533. The laboratory must conduct and report electronically a complete analysis for all PFAS analytes under EPA Method 533.
4. A PFAS detection is a positive finding of a quantifiable amount above the established detection level requirement for any PFAS analyte tested pursuant to this Order. For the purposes of meeting the requirements in Health and Safety Code section 116378, the established detection level requirement for each PFAS

ORDER DW 2022-0001-DDW

analyte will be identified as the Consumer Confidence Report Detection Level (CCRDL). The detection level requirement for each PFAS constituent for which monitoring is required in this Order is identified by the State Water Board and attached to this Order.

5. If a laboratory reports the detection of PFAS in any sample at a concentration greater than the established detection level, the water system will have the option of collecting one or two confirmation samples within 30 days of being notified of the initial detected result by the laboratory.
6. If a PFAS detection is followed by a confirmation sample with a result less than the reporting level, a second confirmation sample may be taken by the water system. Both the first and second confirmation samples must be collected within 30 days of the notification by the laboratory of the initial detected sample result. An initial detected result will be disregarded if both confirmation samples do not show the detection of the PFAS contaminant. If no confirmation sample – or only one confirmation sample – is collected, the initial detection must be presumed to be confirmed.
7. If the PFAS detection is confirmed, results of the initial and confirmation samples will be averaged to determine if the confirmed detection is greater than the applicable notification level and/or response level. For calculation purposes, a result below the established detection level will be assigned a value of zero when averaging.
8. If the PFAS detection is confirmed, the detection must be reported in the water system's annual consumer confidence report.
9. If two consecutive quarters of testing results are below those listed on the CCRDL attached, the public water system may submit a request to their DDW District Engineer for a modification or reduction in monitoring.

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10. If the results of a PFAS detection are confirmed to exceed a notification level, the water system must report the detection as required by Health and Safety Code section 116455. Section 116455 notification is required within 30 days after the water system is first informed by the laboratory of a confirmed detection of the contaminant that exceeds the notification level. As required by section 116455, if the public water system is a retail water system, then the person operating the retail water system must notify the retail water system's governing body and the governing body of any local agency whose jurisdiction includes areas supplied with drinking water by the retail water system. If the public water system is a wholesale water system, then the person operating the wholesale water system must notify the wholesale water system's governing body and the water systems that are directly supplied with that drinking water.
11. The specific methodology to determine response level exceedances is dependent on the PFAS analyte and health endpoint. An exceedance may be determined by calculating a quarterly running annual average (QRAA), a single or confirmed sample, or as prescribed in the PFAS analytes Notification Level Issuance by DDW. To determine whether monitoring shows an exceedance of a response level, refer to the appropriate methodology of the PFAS analyte. Exhibit B provides a summary of this information but may not be inclusive as new advisory levels are issued.
12. To determine whether monitoring shows an exceedance of a response level for those PFAS analytes that do not use the QRAA method, either a single sample or a confirmed sample is used to determine if the response level is exceeded. Except for PFHxS, if laboratory analysis detects the presence of a constituent in any sample above the response level, the water system will have an option to conduct a confirmation sample within 30 days of being notified of the result by the laboratory. If a confirmation sample is collected and analyzed, all results will

ORDER DW 2022-0001-DDW

be averaged. For PFHxS, if laboratory analysis detects the presence of a constituent in any sample above the response level, the water system will not have an option to conduct a confirmation sample and can request to the laboratory the use of the field duplicate to confirm the results. If the duplicate is analyzed, the result will be averaged.

13. To determine whether monitoring shows an exceedance of a response level for those PFAS analytes using the QRAA method, the water system must calculate a quarterly running annual average (QRAA). The QRAA means the average of sample results taken at an individual source, treatment effluent, or delivered water locations for the identified source during four calendar quarters. The QRAA is re-calculated each quarter using the most recent four quarters of results. A single sample may result in the exceedance of the response level. If any sample would cause the QRAA to exceed a response level, the water source would be deemed to have exceeded the response level. If sampling has just begun and there are less than 4 quarters of results to average, then the other quarters will be considered to have a zero value and the quarterly results would be divided by four. If a system takes more than one sample in a quarter, the average of all the results for that quarter must be used when calculating the running annual average. If a system fails to complete four consecutive quarters of monitoring, the running annual average must be based on an average of the available data by dividing the available data by the number of quarters for which data is available.
14. If any monitoring is undertaken pursuant to this Order results in a concentration of PFAS in the water entering the distribution system that exceeds a response level, the water system must either (1) take the source out of service immediately; (2) utilize treatment or blending; or (3) provide public notification of

ORDER DW 2022-0001-DDW

the response level exceedance. Additionally, the exceedance of the response level must be reported in the annual consumer confidence report.

15. In addition to the sources listed in this Order, public water systems that provide treatment (example, blending, granular activated carbon, ion exchange, or reverse osmosis treatment) can also sample the treated or delivered water to determine notification requirements. If treated water or delivered water samples are proposed to be collected, please contact the local DDW district office for input on sampling location and configuration.

16. Public notification for community or nontransient-noncommunity water systems that are delivering water exceeding a response level must meet the requirements of Health and Safety Code section 116378 and either take the source out of use or complete the public notification requirements.

17. The results of all analyses conducted pursuant to this Order must be reported to the Board by the analyzing laboratory using the EDT (Electronic Data Transfer) process in accordance with Section 64469 of Title 22 of the California Code of Regulations. Analytical results must be reported no later than the 10th day of the month following the completion of the analysis.

The State Water Board reserves the right to make modifications to this Order as it may deem necessary to protect public health and safety. Such modifications must be issued as amendments to this Order and must be effective upon issuance.

SEVERABILITY

The requirements of this Order are severable, and each public water system listed in Exhibit A must comply with each and every provision thereof notwithstanding the effectiveness of any provision.

ORDER DW 2022-0001-DDW

FURTHER ENFORCEMENT ACTION

The California Safe Drinking Water Act authorizes the State Water Board to issue a citation or order with the assessment of administrative penalties to a public water system for violation or continued violation of the requirements of the California Safe Drinking Water Act or any regulation, permit, standard, citation, or order issued or adopted thereunder including. The California Safe Drinking Water Act also authorizes the State Water Board to take action to suspend or revoke a permit that has been issued to a public water system if the public water system has violated applicable law or regulations or has failed to comply with an order of the State Water Board, and to petition the superior court to take various enforcement measures against a public water system that has failed to comply with an order of the State Water Board.



Darrin Polhemus, Deputy Director
State Water Resources Control Board
Division of Drinking Water

October 31, 2022

Date

Exhibit A – List of Sources Subject to General Order DW 2022-0001-DDW
Exhibit B - Consumer Confidence Report Detection Levels (CCRD) and Advisory Levels

**Attachment III
Remaining PFAS Chemicals Detectable by Current Water Testing**

Per- and Polyfluoroalkyl Substances (PFAS)	Notification Level (NL) nanograms per liter (ng/L) or parts per trillion (ppt)	Response Level (RL) nanograms per liter (ng/L) or parts per trillion (ppt)
Perfluorohexanoic acid (PFHxA)	Requested	Requested
Perfluoroheptanoic acid (PFHpA)	Requested	Requested
Perfluorodecanoic acid (PFDA)	Requested	Requested
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	Requested	Requested
Perfluorododecanoic Acid (PFDOA)		
Perfluoroundecanoic Acid (PFUNA)		
11CL-PF3OUDS		
9CL-PF3ONS		
Perfluorobutanoic Acid (PFBA)		
Perfluorooctane Sulfonic Acid 6:2 FTS		
Perfluorohexane Sulfonic Acid 4:2 FTS		
Perfluorodecane Sulfonic Acid 8:2 FTS		
Perfluoro PFMPA		
Perfluoropentanoic Acid (PFPEA)		
Perfluoro PFMBA		
Perfluoro PFEESA		
Nonafluoro NFDHA		
Perfluoropentanesulfonic Acid (PFPES)		
Perfluoroheptanesulfonic Acid (PFHPS)		



**Chief
Executive
Office.**

COUNTY OF LOS ANGELES

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CHIEF EXECUTIVE OFFICER

Fesia A. Davenport

October 18, 2023

To: Supervisor Janice Hahn, Chair
Supervisor Hilda L. Solis
Supervisor Holly J. Mitchell
Supervisor Lindsey P. Horvath
Supervisor Kathryn Barger

From: Fesia A. Davenport
Chief Executive Officer FAD
FAD (Oct 16, 2023 17:55 PDT)

**REPORT ON PER- AND POLY-FLUOROALKYL SUBSTANCES IN
LOS ANGELES COUNTY WATER SYSTEMS MOTION (ITEM NO. 26,
AGENDA OF JULY 25, 2023)**

On July 25, 2023, the Board of Supervisors (Board) adopted a motion related to per- and poly-fluoroalkyl substances (PFAS) in Los Angeles County Water Systems. Directive 3 of the motion directed the County's Chief Executive Office's Legislative Affairs and Intergovernmental Relations branch (CEO-LAIR) to identify potential State and federal funding to support implementation of treatment system retrofits to address PFAS in drinking water.

To prepare this report, CEO-LAIR met with the Department of Public Works (DPW), Department of Public Health, the Chief Sustainability Office, as well as Chief Executive Office's Sacramento and Washington, D.C. Advocates, to discuss the current local efforts and explore funding opportunities for addressing PFAS in drinking water in Los Angeles County.

Based on the discussions, CEO-LAIR has identified the following State and federal funding opportunities that may be considered for securing resources to address PFAS in County drinking water systems.



Federal Funding Opportunity to Address Emerging Contaminants

The Bipartisan Infrastructure Law (BIL) invests \$5 billion over five years to help communities that have PFAS contamination in their water systems reduce PFAS in drinking water. In February 2023, the U.S. Environmental Protection Agency (EPA) announced the availability of the first \$2 billion to address emerging contaminants, like PFAS, in drinking water across the country. This investment for states and territories was made available to communities as grants through EPA's Emerging Contaminants in Small or Disadvantaged Communities Grant Program to promote access to safe and clean water in small, rural, and disadvantaged communities. This initial allotment of \$2 billion is intended for use to prioritize infrastructure and source water treatment for pollutants, like PFAS and other emerging contaminants, and to conduct water quality testing.

The DPW reports that the BIL funding is distributed through State revolving fund programs. DPW notes that they have recently encountered many added requirements and legal conflicts related to the Drinking Water State Revolving Loan Fund (DWSRF) that have made it overly cumbersome and infeasible for County's projects.

The Chief Executive Office's Sacramento Advocates are engaging with State officials to determine which agencies typically impose the requirements that make the DWSRF an infeasible source of funding and to identify possible areas to advocate for flexibilities for the County.

New Legislation to Reauthorize Additional Funds to Address PFAS

Over the past several years, the widespread public exposure to dangerous levels of PFAS in water systems and other potential pathways has triggered concerns and generated interest among Congressional leaders to consider policies and funding for PFAS-related programs and provisions. There is an opportunity to engage with the County's Congressional Delegation members, including Senator Alex Padilla, who has been active in addressing PFAS contamination in California and across the country, to encourage introduction of federal legislation that would authorize additional funds for PFAS-related activities and possibly provide direct federal funding for large jurisdictions such as Los Angeles County. The Chief Executive Office's Washington, D.C. Advocates will work with Senator Padilla's office to explore relevant legislative opportunities.

Community Project and Congressionally Directed Spending Requests

Members of Congress may also solicit Community Project or Congressionally Directed Spending requests (known as earmarks) to support specific local projects as part of the annual appropriations process. While the funding amounts for such earmarks are generally small (usually less than \$1.5 million), they present an opportunity to submit requests through County's Congressional Delegation to fund specific PFAS-related projects impacting water systems within the County. Upon commencement of the Federal Fiscal Year 2025 earmark process, CEO-LAIR will work with DPW to identify any PFAS-related projects that may qualify for this funding opportunity.

State Funding for PFAS

The State Budget Act of 2021 appropriated \$30 million from the State General Fund to the State Water Resources Control Board (State Water Board) to address PFAS in the water systems. The State Budget Act of 2022 included another \$50 million allocated for fiscal year (FY) 2022-23 and \$20 million for FY 2023-24. According to the State Water Board, this funding is available for technical and financial assistance to drinking water systems to address PFAS in their water drinking water supply.

Should you have any questions concerning this matter, please contact me or Samara Ashley, Assistant Chief Executive Officer, at (213) 974-1464 or sashley@ceo.lacounty.gov.

FAD:JMN:SA
AO:SS:sy

c: Executive Office, Board of Supervisors
County Counsel
Chief Sustainability Office
Public Health
Public Works



BARBARA FERRER, Ph.D., M.P.H., M.Ed.
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November 20, 2023

TO: Each Supervisor

FROM: Barbara Ferrer,
Director of Public Health

Muntu Davis on behalf of Dr. Ferrer

PER-AND-POLY FLUOROALKYL SUBSTANCES IN LOS ANGELES COUNTY WATER SYSTEMS (ITEM NO. 26, BOARD AGENDA OF JULY 25, 2023)

This report is in response to the July 25, 2023 motion by the Board directing the Department of Public Health (Public Health), in consultation with the Department of Public Works (DPW), the Chief Sustainability Office, and Chief Executive Office - Legislative Affairs and Intergovernmental Relations (CEO-LAIR) to engage with the State Water Resources Control Board (SWRCB), to report back in writing in 120 days on:

1. Determine the status of the statewide Per-and-Polyfluoroalkyl (PFAS) Maximum Contaminant Level (MCL) standards and make recommendations to strengthen regulations upon establishing MCL standards, including any potential gaps in proposed regulations.
2. Determine if testing standards and notification processes can be enhanced through regular monitoring by all water systems.

Determine the status of the statewide PFAS Maximum Contaminant Level (MCL) standards and make recommendations to strengthen regulations upon establishing MCL standards.

To protect the public’s potable water supply and reduce exposure to PFAS, the US Environmental Protection Agency (EPA) is proposing a National Primary Drinking Water Regulation (NPDWR) to establish legally enforceable standards, Maximum Contaminant Levels (MCLs), for six PFAS chemicals by the end of 2023. The six PFAS chemicals as previously mentioned are:

- PFOA and PFOS as individual contaminants,
- PFHxS, PFNA, HFPO-DA (commonly referred to as GenX Chemicals), and PFBS as PFAS mixture,

US EPA is proposing that the PFAS MCL will apply only to Community and Non-Transient Non-Community Public Water Systems and not apply to Transient Public Water Systems. Transient Public Water Systems were not included in the proposed PFAS testing because these water systems serve different people at different times; therefore, the level of exposure is not critical. EPA is

leveraging the most recent science and building on existing state efforts to limit PFAS testing. The proposal considers the feasibility of analysis and treatment, as well as consideration of costs and benefits.

The NPDWR process began with establishing non-enforceable Maximum Contaminant Level Goals (MCLGs) for the proposed PFAS chemicals. MCLGs are the maximum level of a contaminant in drinking water where there are no known or anticipated negative health effects allowing for a margin of safety. US EPA proposes MCLs as close to the health based MCLGs as feasible. The proposed MCLs do not necessarily match the MCLGs because the values are so low that analytical laboratories are unable to detect compounds at that level or cannot do so without using exorbitantly expensive technology. In addition, the availability and cost of treatment technologies are taken into consideration as well.

The US EPA is proposing to establish a Hazard Index (HI) for the PFAS mixtures of PFHxS, PFNA, PFBS, and GenX Chemicals. The HI is a tool used to evaluate potential health risks from exposure to chemical mixtures, based on an assumption of dose additivity. The HI does not include PFOA and PFOS which are proposed for regulation as individual contaminants due to their likely carcinogenicity.

The first step in developing a Hazard Index is establishing Health Based Water Concentrations (HBWCs) for these four chemicals. The HBWCs are similar to the MCLG, in that it is the level below which no health effects are expected for this PFAS mixture. The US EPA assessed the best available peer-reviewed science with final toxicity values for non-cancer health effects associated with oral exposure.

Public water systems would use a hazard index calculation to determine if the combined levels of these PFAS in their drinking water pose a potential risk and require action. Please reference Table 1 for the proposed MCLG, MCL, and HI.

The proposed US EPA PFAS rule would require public water systems to:

- Monitor for these PFAS by following an established monitoring frequency,
- Notify the public of the levels of these PFAS; and
- Reduce the levels of these PFAS in drinking water if they exceed the proposed standards.

Until the State adopts the PFAS MCL, the US EPA will have full enforcement authority. The State will assist the US EPA by notifying the required water systems to test for PFAS. The notification will entail information regarding PFAS, established MCL, monitoring frequency, etc. The Department of Public Health – Drinking Water Program/Local Primacy Agency (LPA) role will be to monitor the water system’s testing schedule and results. If there are any missed tests or exceedances, the LPA will notify the SWRCB to notify the US EPA. This process will continue until the State adopts the PFAS MCL.

Per- and Polyfluoroalkyl Substances (PFAS)	Proposed Maximum Contaminant Level Goal (MCLG) nanograms per liter (ng/L) or parts per trillion (ppt)*	Proposed Maximum Contaminant Level (MCL) nanograms per liter (ng/L) or parts per trillion (ppt)*
Perfluorooctanoic acid (PFOA)	0*	4*
Perfluorooctane sulfonic acid (PFOS)	0*	4*
Perfluorobutane sulfonic acid (PFBS)	Hazard Index 1 (unitless)	Hazard Index 1 (unitless)
Perfluorohexane sulfonic acid (PFHxS)		
Perfluorononanoic acid (PFNA)		
HFPO-DA (GenX Chemicals)		

It is a great possibility that the State will adopt the US EPA’s PFAS MCL through administrative law. SWRCB will be able to provide more information on the MCL adoption process after the US EPA finalizes its MCL. The State has the option of adopting the MCL by reference or developing a more restrictive State MCL. The State has not finalized the adoption method; however, developing a State MCL will take a very long time. During the development of the State MCL, the MCL established by the US EPA would be in effect.

The EPA’s proposed PFAS MCL is strong. Notably, however, the monitoring and treatment of PFAS in water systems is only one among a potential suite of strategies for reducing PFAS exposure. The US EPA’s PFAS Strategic Roadmap released in 2021 outlines other key approaches such as restricting the use of PFAS in manufacturing and restricting the discharge of PFAS-containing wastewater to the environment. However, the EPA has not yet finalized any regulations on restricting the production, use, or discharge of PFAS. Draft US EPA rules on discharges from PFAS manufacturers are expected in spring of 2024, but there is no timeline for discharges from several other PFAS-using industries or from landfills. The state of California has banned the use of PFAS in the manufacturing and sale of select products including firefighting foam, textiles, and food packaging, but has not established any policies on discharge. There are significant gaps in the approach to reducing PFAS exposure due to limited regulation of PFAS manufacturing, products containing PFAS, and wastewater discharges containing PFAS.

The County can advocate for the EPA to move more quickly on developing strong regulations regarding PFAS discharge, and we can also explore whether it is possible to reduce local exposure by establishing local regulations of PFAS discharges from relevant sources including landfills. Additionally, we could explore a local requirement to disclose use of PFAS in manufacturing, and we could consider restrictions on the sale and distribution of products commonly containing PFAS such as cosmetics, children’s products, and artificial turf.

Determine if testing standards and notification processes can be enhanced through regular monitoring by all water systems.

Regular monitoring of PFAS by all water systems can provide valuable data to enhance testing standards and notification processes. This is particularly important to ensure the safety and quality of drinking water. After initial assessment of a water system's PFAS levels, frequent monitoring is not required for systems with minimal PFAS levels, unless new sources of contamination are identified. Requiring frequent testing is an additional, unnecessary expense for systems that are in compliance.

Here are some key points to consider:

1. **Compliance with Regulations:** Regular monitoring can help ensure that water systems are consistently complying with existing regulations and standards. By assessing whether these standards are being met, water quality can be maintained at a safe level.
2. **Early Detection of Issues:** Regular monitoring can help in the early detection of potential issues or deviations from the established testing standards. This allows for prompt corrective actions to be taken, preventing the escalation of problems that may compromise water quality.
3. **Improved Data Accuracy:** Continuous monitoring of testing standards and notification processes can improve data accuracy. Reliable data is essential for making informed decisions and for ensuring that water quality remains within acceptable limits.
4. **Enhanced Accountability:** When water systems are subjected to regular monitoring, there is a higher level of accountability. This encourages responsible management and ensures that any violations or deviations are addressed promptly.
5. **Emergency Preparedness:** In the event of a contamination or water quality crisis, well-monitored systems are better prepared to respond quickly and effectively. This can minimize the potential health risks associated with compromised water quality.
6. **Public Trust:** Regular monitoring can enhance public trust in water systems. When the community is aware of ongoing oversight and transparency in the testing and notification processes, they are more likely to have confidence in the safety of their drinking water.
7. **Continuous Improvement:** Regular monitoring allows water systems to identify areas for improvement. By analyzing the data collected over time, systems can implement changes to enhance testing standards and notification processes, making them more efficient and reliable.
8. **Regulatory Compliance:** Many regulatory agencies require regular monitoring and reporting of water quality parameters. Failing to do so can result in penalties and legal repercussions.

The proposed EPA rule would require that initial monitoring must be completed in three years between the rule promulgation date (anticipated end of 2023) and the rule effective date (anticipated end of 2026). Proposed initial monitoring requirements to establish baseline PFAS levels include any combination of:

- Two or four samples collected at public water systems over one year, dependent on system population size and system type,

- Use of recent, previously acquired PFAS drinking water data from the fifth Unregulated Contaminant Monitoring Rule (UCMR 5), or other appropriate data collection programs.

Initial monitoring results will determine the ongoing compliance monitoring requirements. Proposed ongoing compliance monitoring requirements include:

- Quarterly monitoring as the normal frequency for all sampling locations,
- Reduced monitoring flexibility to once or twice every three years for sampling locations where the result is below 1/3 of the MCLs (i.e., rule trigger level).

Regular monitoring frequency will be determined by the US EPA and be included in the rule. It most likely be similar to Synthetic Organic Chemicals (SOC) monitoring frequency and will depend on the size of the water system and initial monitoring. Monitoring frequency will be increased for the system in violations of the rule.

A system will be in violation if monitoring results (based on running annual averages) exceed one of the MCLs.

In summary, regular monitoring of testing standards and notification processes is a crucial aspect of maintaining the safety and quality of water systems. It ensures compliance with regulations, early detection of issues, data accuracy, accountability, emergency preparedness, public trust, continuous improvement, and regulatory compliance. These measures contribute to the overall well-being of the community and the environment by safeguarding the quality of the water supply. Although some details on the EPA's monitoring requirements have not been announced, the overall approach within the EPA's proposal, requiring regular monitoring, is strong.

Please contact me if you have any questions or would like additional information.

BF:lf

c: Chief Executive Office
Executive Officer, Board of Supervisors
County Counsel
Chief Sustainability Office