

NOTIFICATION LEVEL ISSUANCE

Contaminant(s):	Perfluorohexane Sulfonic Acid (PFHxS)
Proposed Notification Level:	3 nanograms per liter (ng/L)
Proposed Response Level:	10 nanograms per liter (ng/L), RAA*
Analytical Method:	EPA Methods 537.1 and 533
Toxicological Endpoint:	Decreased total thyroid hormone in male rats
* Running Annual Average - Based on the average concentration calculated from quarterly (4) samples.	

FINDINGS:

General Background on Notification/Response Levels and Specific Requirements

1. Health and Safety Code section 116455 authorizes the State Water Resources Control Board (State Water Board) to issue notification and response levels for contaminants in drinking water delivered for human consumption before a maximum contaminant level (MCL) has been adopted. Pursuant to subdivision (k)(2) of section 116271 of the Health and Safety Code, the Deputy Director of the Division of Drinking Water (DDW) is delegated through the State Water Board's authority to issue notification and response levels.
2. Notification levels (NL) are nonregulatory, health-based advisory levels for contaminants that are established as precautionary measures. NLs are typically set at the lowest estimated risk, provided that the analytical capability exists to allow detection of the chemical at or below the lowest concentration associated with the toxicological endpoint.
3. Response levels (RL) are established in conjunction with notification levels and represent the concentration of a drinking water contaminant at which additional steps, beyond notification, are recommended to reduce public exposure.
4. For contaminants with non-cancer health risks, the RL is set at 10 times the NL. For contaminants with cancer risks, the response level is set at 100 times the notification level (i.e., 10-4 lifetime risk). These factors are considered to provide values consistent with acceptable margins of safety for the protection of public health.
5. The establishment of notification and response levels does not require public water systems to monitor for the contaminant, except when water systems are subject to recycled



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water regulations at Title 22, California Code of Regulations, division 4, chapter 3. However, some water systems may sample for constituents in addition to those contaminants for which there are MCLs, and if those monitoring results indicate that a notification level has been exceeded, the water system must comply with Health and Safety Code section 116455.

6. Health and Safety Code section 116378 requires community and non-transient non-community water systems, when ordered to monitor for PFAS, to
 - A. Report detected results in the water system's annual consumer confidence report,
 - B. Notify the water system's governing body, any local governing body whose jurisdiction includes drinking water supplied by the water system, and others identified in section 116455 when a notification level is exceeded, and
 - C. Either remove a water source from use or provide public notification within 30 days if a response level is exceeded.
7. In addition to the sections 116378 and 116455 requirements, DDW recommends that a public water system inform its customers and consumers about the presence of the contaminant and any associated health concerns.

Information on the Contaminant and the Issuance

8. PFHxS is a member of group of more than 14,000 human-made substances ([U.S. EPA CompTox](#)) called per- and polyfluoroalkyl substances (PFAS). Due to their unique chemistry, they are resistant to heat, water, and oil, and therefore have been widely used as surface coatings and protectant formulations in consumer, commercial, and industrial products including, but not limited to, carpet, home textiles, clothing, food packaging, and non-stick cookware.
9. PFHxS has a highly stable six carbon-fluorine bond structure, which allows it to resist degradation and persist in the environment.
10. In February 2020, DDW requested that the Office of Health Hazard and Assessment (OEHHA) prepare a recommendation for a notification level for PFHxA.
11. On March 17, 2022, OEHHA provided a memorandum and technical document entitled *Notification Level Recommendation, Perfluorohexane Sulfonic Acid in Drinking Water*. The recommended notification level of 2 ng/L or parts per trillion (ppt) represents the concentration of PFHxS in drinking water that would not pose any significant health risk.
12. On October 31, 2022, DDW established an NL and RL for PFHxS of 3 ng/L and 20 ng/L, respectively.



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13. In 2024, U.S. EPA developed an MCL of a running annual average (RAA) of 10 ng/L for PFHxS. DDW revised the RL to 10 ng/L considering the non-cancer risk level and the federal maximum contaminant level. It is 5X the toxicological endpoint established in OEHHA's NL recommendation document. This may offer an additional margin of safety considering PFHxS has been identified as a developmental toxin.
14. Some water systems will be required to monitor for a number of PFAS under the federal 2022-2026 Unregulated Contaminant Monitoring Rule (UCMR 5). This required monitoring may result in detections of PFHxS. For information can be found at: [The Fifth Unregulated Contaminant Monitoring Rule \(UCMR 5\) Fact Sheet](#)
15. U.S. EPA Method 533 requires that within each Extraction Batch, analyze a minimum of one Field Duplicate or one Laboratory Fortified Sample Matrix Duplicate. For the purposes of this method, Field Duplicates are collected to support potential repeat analyses (if the original field sample is lost or if there are QC failures associated with the analysis of the original field sample). DDW recommends that a Field Duplicate is collected, especially when PFHxS is expected to be present in field samples.
16. In addition, collection of duplicate samples are recommended for timely confirmation and reporting of exceedances.
17. In accordance with section 116456 of the Health and Safety Code, DDW posted the proposed notification and response levels for PFHxS on its website, along with OEHHA's recommendation and links to peer-reviewed studies relied upon. DDW provided notice of the proposed notification and response levels, with supporting documentation, via email on July 3, 2025. Documents related to development of the notification and response levels are available at https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/NotificationLevels.html.
18. On August 6, 2025, DDW presented a proposed NL of 3 ng/L and RL of 10 ng/L (RAA) for PFHxS as an informational item during the regularly noticed meeting of the State Water Board.

Therefore, the Deputy Director of DDW establishes a notification level of 3 ng/L and response level of 10 ng/L (RAA) for PFHxS.

Approved:

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

Date