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Via regulations.gov

June 5, 2026

Thomas Lombardi
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U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

RE: Drinking Water Contaminant Candidate List 6-Draft
Docket ID Number EPA-HQ-OW-2022-0946

Dear Mr. Lombardi:

On behalf of Food & Water Watch (FWW) and the undersigned organizations (collectively, Commenters), please consider the following comments on the Environmental Protection Agency's (EPA or the agency) notice of availability and request for comments on the draft Sixth Contaminant Candidate List (CCL 6).[1] FWW fights for the safe and healthy food, clean water, and livable climate we all deserve. We empower people to take on destructive corporations and the policy makers who enable them, in order to stop pollution, defend democracy, and protect the planet—now and for future generations. FWW considers water a human right and advocates extensively for clean and affordable water for all. This includes ensuring that our drinking water is safe from toxic contamination like microplastics and PFAS.

In proposing to list microplastics on CCL 6, EPA acknowledges that "[t]hese contaminants are known or anticipated to occur in public water systems and may require regulation under the Safe Drinking Water Act (SDWA) in the future."[2] We agree. But as EPA also acknowledges, CCL 6 "will not impose any requirements on regulated entities."[3] As such, this small step falls woefully short of the substantive action we need to confront the microplastics contamination crisis.

Commenters urge EPA to begin to meaningfully address microplastics by including them on the Sixth Unregulated Contaminant Monitoring Rule (UCMR 6) in addition to listing microplastics on the final CCL 6. The UCMR—which EPA issues only every five years—is scheduled to be finalized by the end of this year. In November 2024, FWW and over 170 national, regional, state, and local organizations petitioned EPA to monitor for microplastics in drinking water under UCMR 6. A year later, in November 2025, a coalition of seven state governors submitted a

[1] Drinking Water Contaminant Candidate List 6-Draft, 91 Fed. Reg. 17186 (Apr. 6, 2026) (to be codified at 40 C.F.R. pt. 141).
[2] *Id.*; *see also*, 42 U.S.C. § 300g-1(b)(1)(B)(i)(I).
[3] 91 Fed. Reg. at 17186.

petition to EPA urging the agency to do the same. Both of these petitions, which are attached and hereby incorporated by reference, demonstrate the urgent need for microplastics monitoring without years more delay.[4] In addition, the petition submitted by seven governors compels EPA to include microplastics on UCMR 6 unless the agency determines that doing so "would prevent the listing of other contaminants of a higher public health concern."[5]

While Commenters support listing microplastics on the final CCL 6, the agency must not stop there for at least two primary reasons. First, the threats posed to people by microplastics warrant drinking water monitoring now. Second, EPA can and should begin monitoring while further research into microplastics continues.

I. Microplastics pose unacceptable risks to human health that underscore the need for drinking water monitoring now.

In recent years, we have been inundated with studies examining the risks microplastics pose to people. The existing body of research on microplastics contamination and harms to human health, along with new research that continues to rapidly emerge, emphasize the need for EPA to not only list microplastics on CCL 6, but also to begin monitoring for microplastics in drinking water under UCMR 6.

New research continues to raise alarms about the links between microplastics and harm to the digestive, cardiovascular, respiratory, endocrine, reproductive, and neurological systems. According to one review focusing on microplastics and harm to gut health, exposure to micro- and nanoplastics is linked to microbial imbalances, intestinal inflammation, and increased gut permeability known as "leaky gut," among other harmful effects.[6] Research highlights the interplay between the gut and other systems, effectively linking microplastic-induced harm in the digestive system with liver, kidney, cardiovascular, and neurological damage.[7] The links between microplastic exposure and certain cancers are particularly alarming, with a recent study finding microplastics in 56 percent of human intestinal tumors tested.[8] Compared to patients without microplastics found in their tumors, patients with microplastics were more likely to have tumor recurrence and more severe gastrointestinal symptoms over the follow-up period.[9]

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[4] Attach. 1, Food & Water Watch, et al. Petition to Include Microplastics on the Sixth Unregulated Contaminant Monitoring Rule under the Safe Drinking Water Act (Nov. 24, 2024) [hereinafter, FWW Petition], https://www.foodandwaterwatch.org/wp-content/uploads/2024/11/Microplastics-Petition-to-EPA.pdf; Attach. 2, Request of the Governors of New Jersey, Delaware, Illinois, Maryland, Michigan, Wisconsin, and Connecticut under 42 U.S.C. § 300j-4(a)(2)(B)(ii) that EPA Include Microplastics in the Forthcoming Unregulated Contaminant Monitoring Rule 6 List (Nov. 26, 2025).

[5] 42 U.S.C. § 300j-4(a)(2)(B)(ii).

[6] Sudipta Sankar Bora et al., *Microplastics and human health: Unveiling the gut microbiome disruption and chronic disease risks,* 14 Frontiers in Cellular Infection Microbiology 1492759, 7-11 (2024), https://pmc.ncbi.nlm.nih.gov/articles/PMC11635378/pdf/fcimb-14-1492759.pdf.

[7] *Id.* at 8-11; Hamza Irfan et al., *Microplastics and nanoplastics: Emerging threats to cardiovascular health – A comprehensive review,* 87 Annals of Med. & Surgery 209, 211-12 (2025), https://pmc.ncbi.nlm.nih.gov/articles/PMC11918686/; Ji Wang et al., *Oxidized/unmodified-polyethylene microplastics neurotoxicity in mice: Perspective from microbiota-gut-brain axis,* 185 Env't Int'l. 108523, 11-12. (2024), https://www.sciencedirect.com/science/article/pii/S0160412024001090?via%3Dihub.

[8] H. Chen et al., *Tumour recurrence, gastrointestinal symptoms and inflammation associated with microplastic-positive intestinal tumours*, Nat. Health (2026), https://doi.org/10.1038/s44360-026-00123-z.

[9] *Id*.

Studies continue to find that microplastics are associated with wide-ranging harms, with one review concluding that micro- and nanoplastics can cause cardiovascular disruptions that "ultimately contribute to structural and functional cardiac damage, including bradycardia, fibrosis, and vascular injury."[10] Microplastics penetrate and damage lung tissue[11] and disrupt the reproductive and endocrine systems.[12] They cross the blood-brain barrier and cause cognitive impairments.[13] One study found that the brain had micro- and nanoplastics at levels seven to thirty times higher than the liver or kidneys and that even higher concentrations were observed in brains with dementia.[14] The harmful effects of microplastics are extensive, causing oxidative stress and inflammation that plays a role in cancer development throughout the body.[15]

Sensitive groups such as infants and children are often more exposed and more at risk for health effects associated with microplastics. Recent studies continue to document microplastics crossing the placental barrier, where they can accumulate in tissues and impact fetal development.[16] They can also cross the lactational barrier, accumulating in neonatal tissue and posing potential lifelong risks.[17] Studies have linked higher concentrations of microplastics in younger children

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[10] Faezeh Jahedi et al., *From pollution to palpitations: The heart's silent battle with microplastics.* 25 *BMC Cardiovascular Disorders*, 837, 16 (2025), https://pmc.ncbi.nlm.nih.gov/articles/PMC12648859/.

[11] Myriam Borgatta and Florian Breider. *Inhalation of microplastics – A toxicological complexity,* 12 Toxics 358, 4-5 (2024), https://pubmed.ncbi.nlm.nih.gov/38787137/; Suvash C. Saha and Goutam Saha. *Effect of microplastics deposition on human lung airways: A review with computational benefits and challenges*, 10 Heliyon 5 (2024), https://doi.org/10.1016/j.heliyon.2024.e24355.

[12] Faezeh Jahedi et al., *Nano and microplastics: unveiling their profound impact on endocrine health*, 35(8) Toxicology Mechanisms and Methods, 865, (2025), https://pubmed.ncbi.nlm.nih.gov/40432394/; Rewa E. Zurub et al., *Microplastics exposure: Implications for human fertility, pregnancy and child health,* 14 Frontiers in Endocrinology 1330396, 3-4 (2024), https://www.frontiersin.org/journals/endocrinology/articles/10.3389/fendo.2023.1330396/full; Bogdan Doroftei et al., *Microplastics and human fertility: A comprehensive review of their presence in human samples and reproductive implication*, 303 Ecotoxicology and Env't Safety, 118939, 2, 7-9 (2025), https://doi.org/10.1016/j.ecoenv.2025.118939.

[13] Donghan Zheng et al., *Impact of urinary microplastic exposure on cognitive function in primary school children*, 302 Ecotoxicology & Env't Safety, 118532, 2, 9 (2025), https://doi.org/10.1016/j.ecoenv.2025.118532; Su-jun Fang et al., *Overall effects of microplastics on brain*, 7 Frontiers in Toxicology1619096, 2-5 (2025), https://pmc.ncbi.nlm.nih.gov/articles/PMC12675269/.

[14] Alexander J. Nihart et al., *Bioaccumulation of microplastics in decedent human brains,* 13 *Nature Medicine* 1114, 1116, 1118 (2025), https://doi.org/10.1038/s41591-024-03453-1.

[15] Manu M. Joseph et al., *Microscopic menace: Exploring the link between microplastics and cancer pathogenesis*, 27 Env't Sci. Processes & Impact 1768, 1778-1780, 1783-1784 (2025), https://doi.org/10.1039/D5EM00232J; J.H. Park et al., *Polypropylene Microplastics promote metastatic features in human breast cancer*, 13 Sci. Reports (2023), https://doi.org/10.1038/s41598-023-33393-8; Meltem Cetin et al., *Higher number of microplastics in tumoral colon tissues from patients with colorectal adenocarcinoma*, 21 Env't Chem. Letters (2023), https://doi.org/10.1007/s10311-022-01560-4.

[16] Xuan Zhang et al., *Placental microplastics contamination and its impact on thyroid function in newborns*, 304 Ecotoxicology & Environmental Safety, 119056 at 1, 7, 9 (2025), https://pubmed.ncbi.nlm.nih.gov/41032983/; Sakuntala Nadarasan et al., *Microplastics and child health: A scoping review of prenatal exposure routes and potential health risks*, 15 Toxicology Report, 102143 at 2, 4 (2025), https://doi.org/10.1016/j.toxrep.2025.102143.

[17]Aditya Hemendra Bhatt et al., *Microplastics exposure during perinatal period: Impacts on neonatal immune and metabolic programming - a scoping review*, Journal of Perinatology (2026), https://www.nature.com/articles/s41372-026-02571-7.

with allergic rhinitis (hay fever), increased inattentiveness, and effects on memory.[18] Animal and human studies continue to show the negative systemic effects of prenatal microplastic exposure in offspring and children.[19]

Microplastics also transport harmful substances that compound the risks posed to people. Research indicates that microplastics are able to adsorb PFAS, increase PFAS concentration over time, and increase PFAS' resistance to environmental degradation.[20] Emerging research suggests that combined exposure to PFAS and microplastics can have greater health effects than exposure to either alone.[21] Microplastics have essentially become their own source of PFAS, allowing those toxic chemicals to continually diffuse throughout the environment.[22]

Microplastics, PFAS, and other toxic contaminants continue to be found in drinking water. A 2025 study examining several rural communities in Appalachia found that in-home water samples were contaminated with microplastics at average concentrations ranging from 5.5 to 20 particles/L, with samples from Kentucky more than doubling the mean concentration for U.S. samples in a prior study.[23] PFAS and heavy metals were also detected in many samples.[24]

The risks posed by microplastics in drinking water, and the need for monitoring in response, are further discussed in the attached petitions, as well as the attached letter signed by over 250 public health professionals urging EPA to monitor for microplastics in drinking water.[25]

II. EPA should begin drinking water monitoring while research into microplastics continues.

EPA has an opportunity to start monitoring for microplastics in drinking water through UCMR 6 rather than wait another five years or more to take real action. Further research into microplastics will undoubtedly continue over that time period regardless, and, if existing research is any indication, the risks posed by microplastics will only become increasingly alarming. As such, EPA should begin monitoring for microplastics now and adapt its approach as more information becomes available.

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[18] Huimin Li et al., *Microplastic exposure in the lungs of young children and its associations with allergic rhinitis: A cross-section study in China*, 4 Eco-Env't & Health, 100193 at 7 (2025), https://doi.org/10.1016/j.eehl.2025.100193; Zheng et al., *supra* note 13, at 5,.

[19] Nadarasan, *supra* note 16, at 11-18; Zurub, *supra* note 12, at 5-7.

[20] FWW Petition, *supra* note 4, at 5.

[21] Ping Wang et al., *The microplastic-PFAS nexus: From co-occurrence to combined toxicity in aquatic environments*, 13 Toxics, 1041, at 2-6, 15.(2025), https://pubmed.ncbi.nlm.nih.gov/41441262/; Neha Parashar et al., *Microplastics as carriers of per- and polyfluoroalkyl substances (PFAS) in aquatic environment: Interactions and ecotoxicological effects*, 2 Water Emerging Contaminants & Nanoplastics, at 13 (2023), http://doi.org/10.20517/wecn.2023.25.

[22] Wang, *supra* note 21, at 6.

[23] Kate Albi et al., *Comparing in-home and bottled drinking water quality: Regulated and emerging contaminants in rural Central Appalachia,*, 23 Journal of Water & Health, at 9-11 (2025), https://pubmed.ncbi.nlm.nih.gov/41026134/.

[24] *Id*.

[25] Attach. 3, Letter from Public Health Professionals to EPA (May 18, 2026).

EPA claims that there are "data gaps for microplastics that will require further research before [it] can fully understand the risks associated with microplastics in drinking water."[26] However, that there is more to learn is the nature of emerging contaminants; it is not a reason for inaction. Moreover, the agency has offered no explanation as to why addressing the data gaps it deems necessary to fill cannot occur simultaneously with a monitoring program based on the best information and technology currently available. Indeed, monitoring with existing methodologies is a key way to fill certain data gaps.

Better understanding the factors associated with health effects, how microplastics interact with other substances, and the sources of microplastics in drinking water are worthwhile inquiries. Yet existing research already shows that the potential health effects of microplastics are significant and wide-ranging, that microplastics interact with PFAS and other toxic substances in troubling ways, and that microplastics enter drinking water supplies and distribution systems through various identifiable sources.[27] EPA can and should use information currently available to start monitoring, while continuing to conduct research it deems necessary to inform future approaches.

EPA identifies detection technology as a data gap even though it has been in the process of developing a microplastics methodology since at least February 2024.[28] Beyond that, EPA has recognized that two voluntary consensus standards methods are available, as are various spectroscopic techniques, including fourier transform infrared (FTIR) spectroscopy, laser direct infrared (LDIR) spectroscopy, and Raman spectroscopy.[29] Further, the California State Water Resources Control Board has already adopted two methodologies—Raman spectroscopy and infrared spectroscopy—for use in its microplastics drinking water monitoring program, and has recommended that EPA explore Gas Chromatography Mass Spectrometry.[30] Finally, as with new information on health effects, new technologies and advancements in microplastics detection are emerging at a fast clip.[31] Improvements in detection technology can be incorporated after a contaminant initially appears on the UCMR, as was the case with PFAS. EPA recognized that "significant improvements in analytical capabilities for measuring certain PFAS, including PFOA and PFOS, [occured] between UCMR 3 and UCMR 5."[32] That there will inevitably be advancements——perhaps even spurred by a monitoring program—cannot justify ignoring the technologies currently available.

EPA also identifies the need for a "health-based definition" as a data gap."[33] However, this is not truly a data gap precluding EPA from adopting a meaningful definition of microplastics. In the Technical Support Document for the Draft Sixth Contaminant Candidate List (CCL 6) -

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[26] 91 Fed. Reg. at 17193.
[27] FWW Petition, *supra* note 4, at 2-6.
[28] *Id.* at 10.
[29] *Id.*
[30] *Id.*
[31] *See, e.g.*, Abdelrahman Elawady et al., *Advancements in microplastics detection techniques and their multidimensional impacts on aquatic ecosystems and human health*, 2 J. of Hazardous Materials: Plastics (2026), https://www.sciencedirect.com/science/article/pii/S3051060025000253.
[32] FWW Petition, *supra* note 4, at 14; PFAS National Primary Drinking Water Regulation, 89 Fed. Reg. at 32576 (comparing the minimum reporting levels of 40 ng/L and 20 ng/L for PFOS and PFOA, respectively, in UCMR 3 with the minimum reporting levels of 4 ng/L each for PFOS and PFOA in UCMR 5).
[33] 91 Fed. Reg. at 17193.

Chemical Contaminants, EPA's Office of Water identifies a substantively similar point not as a definitional issue, but simply as a need for further research into "[f]actors associated with health effects."[34] Again, additional research into microplastics—including exactly which characteristics of microplastics are associated with negative health impacts—will undoubtedly continue. But it should not prevent EPA from defining microplastics for the purposes of taking further action now.

EPA fails to explain why it cannot define microplastics based on what is known about certain characteristics—for example, size. Small microplastics and nanoplastics likely pose more significant health risks, with a "higher potential for acting as adsorbate for contaminants and also for reaching up to the distant organs; thus posting comparatively serious health effects" and with the ability to "penetrate epithelial cell membranes, blood-brain barriers, and the placenta, leading to more severe health problems."[35] Given the information available about the risks posed by smaller microplastics and nanoplastics, EPA should formulate a definition that accounts for these tiny particles to the greatest extent possible.

EPA also fails to explain why existing definitions are insufficient to form the basis for future action. EPA's researchers define microplastics as "plastic particles ranging in size from 5 millimeters … to 1 nanometer" and nanoplastics as "a subset of microplastics … smaller than 1 [micrometer]."[36] These definitions are commonly used by government agencies,[37] and there is precedent for defining microplastics for drinking water monitoring, as the California State Water Resources Control Board adopted the same size range for use in its program, along with additional definitional components.[38]

The health risks posed by microplastics are alarming—seemingly more so every day—and require urgent action from EPA. Instead of using data gaps as an excuse to sit on its hands for another five years or more, the agency should use the best information currently available to begin monitoring for these emerging contaminants in drinking water and adapt its approach as indicated based on further research and technological advancements.

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[34] *Compare id*. at 17193 ("A health-based definition: the need to determine the characteristics of the microplastics (i.e., colors, polymers, shapes, sizes, etc.) most associated with adverse health effects in humans from exposure in drinking water.") *with* EPA Office of Water, Technical Support Document for the Draft Sixth Contaminant Candidate List (CCL 6) - Chemical Contaminants 76 (Feb. 2026), https://www.regulations.gov/document/EPA-HQ-OW-2022-0946-0032 ("Factors associated with health effects: Determination of the characteristics of the microplastics (i.e., colors, polymers, shapes, sizes, additional chemical components, etc.) that are consistently associated with adverse health effects in humans from exposure in drinking water.").

[35] FWW Petition, *supra* note 4, at 13 (quoting Surya Singh et al., *Microplastics in Drinking Water: A Macro Issue*, 22 Water Supply 5650, 5661 (2022); Noor Haleem et al., *Microplastics and Associated Chemicals in Drinking Water: A Review of their Occurrence and Human Health Implications*, Sci. Total Env't at 4 (2024)).

[36] EPA, Microplastics Research, https://www.epa.gov/water-research/microplastics-research (last visited May 21, 2026).

[37] *See, e.g.*, *id*.; NOAA, What Are Microplastics, https://oceanservice.noaa.gov/facts/microplastics.html (last visited May 28, 2026); FDA, Microplastics and Nanoplastics in Foods, https://www.fda.gov/food/environmental-contaminants-food/microplastics-and-nanoplastics-foods (last visited May 28, 2026).

[38] Cal. State Water Res. Control Bd., Policy Handbook Establishing a Standard Method of Testing and Reporting of Microplastics in Drinking Water at 3-4 (Aug. 9, 2022), https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/docs/2022/mp-hndbk.pdf.

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For the aforementioned reasons, Commenters urge EPA to include microplastics on UCMR 6 in addition to listing microplastics on the final CCL 6.

Sincerely,

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Additional Commenters

350 Bay Area Action
5 Gyres Institute
Alliance of Nurses for Healthy Environments
Animals Are Sentient Beings, Inc.
Austin Chapter 10 of the Izaak Walton League of America
Beyond Plastics Queens
Center for Biological Diversity
Center for Environmental Health
Central Bergen Circle of GreenFaith
Cherokee Concerned Citizens
Clean River Partners
Clean Water Action
CleanEarth4Kids.org
Climate Conversation Brazoria County
Coalition for Peace Action
Coalition for Plastic Reduction
Concerned Health Professionals of Pennsylvania
CURE
Detroit Riverkeeper
Environmental Health Project
Flow Water Advocates
FreshWater Accountability Project
Great Lakes Business Network
Groundwork Center for Resilient Communities
Indivisible Eastside
Indivisible Santa Cruz County, Environmental Issues Team
Inner City Neighborhood Art House
Interfaith Environmental Network of Houston
Lower Raritan Watershed Partnership
Lower Susquehanna Riverkeeper Association
Mankato Area Zero Waste and Beyond Plastics Mankato Area

Michigan Microplastics Coalition
Mid-Ohio Valley Climate Action
Milwaukee Riverkeeper
Mountain Watershed Association
Move Past Plastic
Northeast Metro Climate Action
Northwest Watershed Institute
Orange County Coastkeeper
People Over Petro Coalition
Physicians for Social Responsibility Pennsylvania
Pittsburghers Against Single Use Plastic
Plastic Pollution Coalition
Presque Isle Audubon Society
Protect Franklin Park
PSARA (Puget Sound Advocates for Retirement Action)
San Diegans for Sustainable, Equitable and Quiet Equipment in Landscaping
Seaside Sustainability
Straits Area Concerned Citizens for Peace, Justice & Environment
Terra Advocati
The Last Plastic Straw
Three Rivers Waterkeeper
Topanga Peace Alliance; MLK Coalition of Greater Los Angeles
Turtle Island Restoration Network
Unitarian Universalists for a Just Economic Community
United Native Americans
Valley Forge Trout Unlimited
Valley Improvement Projects
Vote Climate
Washington Physicians for Social Responsibility
Waterspirit
Willamette Riverkeeper
Zero Waste Ithaca