



OFFICE OF THE ATTORNEY GENERAL
CONNECTICUT

WILLIAM TONG
ATTORNEY GENERAL

May 8, 2023

By U.S. Mail and Electronic Transmission

Administrator Michael S. Regan
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
Via Electronic Transmission: Regan.Michael@epa.gov

Administrator Richard W. Spinrad
National Oceanic and Atmospheric Administration
1401 Constitution Avenue, N.W.
Washington, D.C. 20230
Via Electronic Transmission: rick.spinrad@noaa.gov

Re: *Microfibers in our Nation's Waters*

Dear Administrators Regan and Spinrad:

The Attorneys General of Connecticut, California, Delaware, the District of Columbia, Illinois, Maryland, Michigan, Minnesota, Nevada, New York, Oregon, Pennsylvania, Rhode Island, Vermont, Washington, and Wisconsin applaud the Environmental Protection Agency (“EPA”), National Oceanic and Atmospheric Administration (“NOAA”), and Interagency Marine Debris Coordinating Committee’s (“IMDCC”) efforts to date in addressing the urgent problem of microfibers in our Nation’s waters. We urge EPA, NOAA, and IMDCC to continue providing leadership on this issue and to develop a more robust national microfibers strategy in ongoing consultation with stakeholders including the undersigned Attorneys General.

Microplastics are everywhere. Harm from microplastic exposure occurs over a wide range of species living in diverse habitats.¹ We ingest microplastics (including microfibers) through our drinking water, air, and food,² and microplastic has been discovered in human blood, breastmilk, and the

¹ National Academies of Sciences, Engineering, and Medicine, *Reckoning with the U.S. Role in Global Ocean Plastic Waste*. The National Academies Press (2022); A. Earn A, et al., [A systematic review of the literature on plastic pollution in the Laurentian Great Lakes and its effects on freshwater biota](#). 47 *Journal of Great Lakes Research* (2021)

² K.D. Cox, et al., [Human Consumption of Microplastics](#), 53 *Environ. Sci. Technol.* (2019) 12; K. Senathirajah, et al., [Estimation of the mass of microplastics ingested – A pivotal first step towards human health risk assessment](#). 404 *Journal of Hazardous Materials Part B* (2021).

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placenta.³ Microplastics pose a threat to human health - studies on animals indicate that plastics may transmit to offspring endocrine-disrupting effects including reproductive disease, sperm epimutations, and obesity.⁴

Microfibers—the almost invisible yet pervasive strands of our synthetic clothing—are the most common type of microplastics pollution in the environment.⁵ Microfibers are so pervasive that they have been found in the Great Lakes, North Pole, Mariana Trench, and the icy Arctic.⁶

Our laundry is a major source of microfiber pollution. Up to 1.5 million microfibers are shed from clothing per wash cycle.⁷ Studies have shown that washing machine filtration systems can capture between 65-75% of microfibers that would otherwise discharge into the environment.⁸ However, most washing machines do not have built-in microfiber filters, although several global appliance manufacturers are developing them. Accordingly, microfibers are regularly released into wastewater treatment plants.⁹ While wastewater treatment plants filter out most microfibers, some microfibers still escape into the environment.¹⁰ The U.S. and Canada alone pollute an estimated 878 tons of microfibers through treated wastewater into the aquatic environment each year.¹¹

³ H.A. Leslie, et al., Discovery and quantification of plastic particle pollution in human blood. 163 *Environment International*, (2022); A. Ragusa, et al., Raman Microspectroscopy Detection and Characterisation of Microplastics in Human Breastmilk. 14 *Polymers (Basel)* (2022); A. Ragusa et al., Plasticenta: First evidence of microplastics in human placenta. 146 *Envi. Int'l* (2021).

⁴ National Academies of Sciences, Engineering, and Medicine, *Reckoning with the U.S. Role in Global Ocean Plastic Waste*. The National Academies Press (2022), 26.

⁵ United States Environmental Protection Agency, *What You Should Know About Microfiber Pollution*, https://epa.gov/sites/default/files/2020-07/documents/article_2_microfibers.pdf (visited January 21, 2022).

⁶ C. Fuschi, et al., Microplastics in the great lakes: environmental, health and socioeconomic implications and future directions. *ACS Sustainable Chem. Eng.* 10 (43) (2022); P.S. Ross, et al., Pervasive distribution of polyester fibres in the Arctic Ocean is driven by Atlantic inputs. 12 *Nature Communications* 106 (2021); X. Peng et al., Microplastics contaminate the deepest part of the world's ocean. *European Association of Geochemistry* (2018); F.S. Cesa, et al., Synthetic fibers as microplastics in the marine environment: a review from textile perspective with a focus on domestic washings. 598 *Sci. Total Environ.* 1166 (2017).

⁷ F. De Falco, et al., The contribution of washing process of synthetic clothing to microplastics pollution. 9 *Sci. Rep.* 6633 (2019).

⁸ M. A. Browne, et al., Pore-size and polymer affect the ability of filters for washing-machines to reduce domestic emissions of fibres to sewage. 15(6) *PloS 1* (2020).

⁹ See n. 5, *supra*, “A study 2019 study by Ocean Wise estimated that the average household in the U.S. and Canada releases 533 million microfibers – or 135 grams – of microfibers to wastewater treatment plants each year.” Pp. 1-2.

¹⁰ P. Iyare, et al., Microplastics removal in wastewater treatment plants: a critical review. 6 *Envi. Sci.: Water Res. Technol.* 2664 (2020).

¹¹ See n. 5, *supra*; K. Vassilenko, et al., Me, My Clothes and the Ocean: The Role of Textiles in Microfiber Pollution, *Ocean Wise Science Feature* (2019).

The undersigned have taken note of the federal response to microfiber pollution. In 2020, EPA's Trash Free Waters program published a consumer-friendly article titled, *What You Should Know About Microfiber Pollution*, explaining how our clothes contribute to the plastics pollution crisis.¹² Pursuant to the Save Our Seas 2.0 Act, in September 2022, IMDCC released a draft report titled, *Report on Microfiber Pollution*.¹³ The report notes that “[w]hile more research is needed to fully understand the effects of microfibers, a precautionary approach to managing microfibers is recommended.”¹⁴ One such measure includes encouraging the public to install aftermarket washing machine filtration systems.¹⁵ Importantly, the report acknowledges that multi-stakeholder collaboration will be imperative in addressing this issue.¹⁶ Aptly on Earth Month, in April 2023, EPA issued a *Draft National Strategy to Prevent Plastic Pollution*, which recognizes the need to fund more research into capture technologies including washing machine microfiber filtration systems.¹⁷

Internationally, several nations have taken the common-sense approach of requiring filtration systems on washing machines.¹⁸ Other countries are expected to follow suit. We are hopeful that the federal government will similarly endeavor to ensure that washing machines in the U.S. are equipped with filtration systems.

While the federal response to the microfibers problem has been encouraging, we urge a more robust response. Congress has directed IMDCC to address microfiber pollution “in partnership with other stakeholders.”¹⁹ As stakeholders, we are here to help, and hope to commence a dialogue to collaboratively address this issue.

Specifically, we encourage the EPA, NOAA and IMDCC to:

¹² See n. 5, *supra*.

¹³ United States Interagency Marine Debris Coordinating Committee, *Report on Microfiber Pollution*, <https://www.regulations.gov/document/NOAA-NOS-2022-0061-0002> (visited on April 23, 2023).

¹⁴ See *id.*, at 42.

¹⁵ See *id.*, at 71.

¹⁶ See *id.*, at 71-72.

¹⁷ United States Environmental Protection Agency, *Draft National Strategy to Prevent Plastic Pollution*, https://www.epa.gov/system/files/documents/2023-04/Draft_National_Strategy_to_Prevent_Plastic_Pollution.pdf (visited April 23, 2023).

¹⁸ All new washing machines sold in France must have a filtration system by 2025. See HuffPost, *Face aux microplastiques, le gouvernement impose des filtres sur les machines à laver* (2020); In March of 2021, Australia announced a phase-in of microfiber filters in commercial and residential washing machines by July 2030. See Australian Government, Department of Agriculture, Water and the Environment, *National Plastics Plan 2021* (2021); A bipartisan parliamentary working group issued a report finding that the United Kingdom should require all washing machines sold there have a filtration system by a date certain. See U.K. All Party-Parliamentary Group on Microplastics, *Microplastic Policies for The Government* (2021).

¹⁹ Save Our Seas 2.0 Act, § 132.

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- Explore Clean Water Act authorities, including existing programs and standards, to address the pervasive problem of plastic microfibers.
- Encourage the development and implementation, in conjunction with State stakeholders and industry groups, of microfiber filtration systems and technology in residential and commercial washing machines; and
- Conduct and pursue research and studies as to the harms to the environment and human health caused by microfibers, with specific emphasis on harms caused by microfibers to environmental justice communities.

The undersigned Attorneys General thank you for your kind attention to this pressing problem.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Tong".

William Tong
Attorney General of Connecticut

A handwritten signature in blue ink, appearing to read "Rob Bonta".

Rob Bonta
Attorney General of California

A handwritten signature in blue ink, appearing to read "Brian Schwalb".

Brian Schwalb
Attorney General of the District of Columbia

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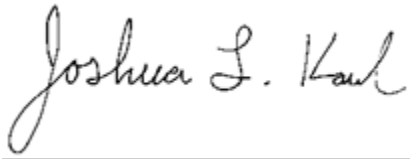


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A handwritten signature in black ink that reads "Joshua L. Kaul". The signature is written in a cursive style and is enclosed within a thin black rectangular border.

Joshua Kaul
Attorney General of Wisconsin