



February 11, 2025

**RE: Support for Senate Bill 526 - Microfiber Filtration**

Dear Committee Members,

Microfibers are one of the most abundant and ubiquitous types of microplastic found in the environment, with 5.6 million metric tons of synthetic fibers estimated to have entered the environment between 1950 and 2016 – that’s equivalent to 28.2 billion T-shirts. Because of their small size and unique shape, microfibers are the most common type of microplastic pollution found in human tissues.

Clothes washing is a major source of microfibers entering the environment – a single load of laundry can release up to 18 million microfibers. These microfibers are often captured in biosolids from wastewater treatment plants. These biosolids are regularly used in land applications, where the microfibers can then be taken up by plants and lead to reduced food yields and growth rates.

Fortunately, there is a cost effective and readily available solution: microfiber filters. Laboratory and field studies show that these filters are effective at capturing about 90% of microfibers from laundry. You can think of these filters like the lint filters in dryers – and yes, much of the lint you remove from those filters are in fact microfibers.

Washing machine filtration technology is a proven, effective, and affordable solution. Analysis by leading economists in California found that adding washing machine filters to residential machines will cost less than \$2/year over the lifetime of a washing machine (assuming a conservative 10 year lifetime), which is expected to decrease overtime with economies of scale. This is also a popular solution, in fact, polling by Ocean Conservancy in 2021 found that 81% of US adults would support mandating microfiber filters in all new washing machines.

SB 526 establishes a science-based standard for capturing microfibers from washing machines. By setting a standard, not a specific technology, and providing an extended 5-year phase-in, SB 526 allows flexibility and time for washing machine manufacturers to integrate existing filtration technologies into new machines

While we need action and interventions across the textile lifecycle to fully address this issue, microfiber filters are a near-term, effective solution that can significantly reduce one of the most common types of microplastic pollution.

With SB 526, Oregon has the opportunity to be the national leader in the fight against microplastic pollution, and I urge your aye vote. Oregon has never waited for other states to take action to protect our environment and communities – we were the first state to pass a bottle bill, the first state to pass EPR (even though Maine’s governor signed it first!), and to take any number of other actions. We can lead on this.

Sincerely,

A handwritten signature in black ink, appearing to read "Anja Brandon".

Anja Brandon, PhD  
Director, Plastics Policy

## Appendix: Responses to concerns

1. *Concern: Filters that capture particles of 100 microns will clog, creating the need for bypass that will render them useless.*

[Laboratory](#) and in-home studies indicate that [100-micron mesh](#) filters do not clog. [A 2021 study conducted in Canada](#) tested the *Filtrol 160* (100-micron) mesh filter using both front-loader and top-loader washing machines. The *Filtrol 160* was selected for its bypass feature; if the filter is full, water in the machine will bypass it and prevent flooding. The feature only activates when the filter is completely full. There is nothing in SB 526 that would prevent the inclusion of a bypass feature, in fact, we anticipate that the inclusion of bypass features in these technologies.

2. *Concern: Consumers will be unwilling to take on the additional maintenance with a filter.*

Consumers are already familiar with the concept of cleaning out a filter when doing laundry, as seen in dryers. Frequency of cleaning filters will vary by model, but [in a study](#) with a 100-micron mesh filter in homes, users cleaned their filters approximately every 1-3 weeks. This study also demonstrated that consumers were willing to collect lint and maintain filters over two years.

3. *Concern: Cleaning the washing machine filter is unsafe.*

We are already exposed to any potential hazards on our clothes during the loading of the washing machine. Moreover, surfactants in detergents act similarly to the surfactants we use in hand soaps to kill and remove bacteria. Moreover, [a 2021 study conducted](#) in 97 homes in Canada over 2 years reported no consumer concerns or health issues.

4. *Concern: There are no washing machines currently available with this technology.*

While these machines are not readily available in the U.S., there are machines available with this technology already built in. A non-exhaustive list of machines on the market included below:

- Hitachi ([scroll down on this page](#) to see the removal and cleaning of the filter)
- Panasonic machines (these available [replacement filters](#) show what they look like and the machine models their compatible with in Japan)
- Haier machines (a [video here](#) that shows how cleaning these filters is just like cleaning a dryer filter)

Other technologies are primed and ready to hit the market:

- [Xeros](#) (including an explanatory video on where the filter fits into the machine and how to clean it), [Matter](#), [CleanR](#) (also includes a [great explanatory video](#))

5. *Concern: France had to withdraw its legislation because it was not technological feasible.*

There is no evidence that France's implementation of this law was hindered by lack of technology fit to meet the standard. The challenge they face with implementation has to do with national versus EU-wide regulations, not the limitation of technology. Specifically, as a member of the EU, France is obligated to abide by one standardized set of product compliance standards, so because France's new requirement was not EU wide, the legality was challenged.

Moreover, the entirety of the French law read "In order to reduce the dispersion of plastic microfibers in the environment from washing laundry, from January 1, 2025, new domestic or professional washing machines are equipped with a plastic microfiber filter or any other solution internal or external to the machine. A decree specifies the terms of application of this article." With little to no additional detail on implementation in the text, Oregon has the opportunity to learn from these past challenges to set the state up for success.

Microfiber filtration technology in washing machines exists, is efficient at capturing microfibers, and is a cost-effective solution that has been supported by:

- CA [Statewide Microplastics Strategy](#)
  - o “Promote, or otherwise require, the sale and use of ENERGY STAR condenser dryers and washing machines with filtration rates of 100 microns or smaller”
- A Congressionally mandated report by [NOAA on microfiber pollution](#)
  - o “Develop, identify, and promote filtration and microfiber capture options for residential, commercial, and industrial washing machines and dryers.”