



August 13, 2026

<Submitted via public comment portal>

TO: Washington Department of Ecology

RE: Organic Materials Management Rulemaking, Chapter 173-350 WAC

Thank you for the opportunity to provide comments on the Washington Department of Ecology's proposed amendments to chapter 173-350 WAC. Our comments focus on the definitions and standards that determine whether certified compostable products, including PHA-based food serviceware and packaging, are treated as organic material or as physical contamination within the state's organics management system.

CJ Biomaterials is a leading manufacturer of polyhydroxyalkanoates, or PHAs. PHAs are a naturally occurring biopolymer that we produce through the fermentation of plant-based sugars and oils. PHA's can replace traditional fossil-based plastics in products such as paper coatings, cutlery, bin liners, and takeout containers while enabling both home and commercial composting as an end-of-life pathway that supports the diversion of food scraps away from landfills and into composting.

We hope that you will consider the following revisions as you finalize the draft regulatory language:

WAC 173-350-100 Definition of "Organic Materials"

The proposed definition limits "organic materials" to substances "of plant or animal origin," a standard that does not support or identify if a material is suitable for microbial biodegradation or if it contributes to a high-quality finished compost. PHA is an example of this limitation as it is produced through microbial fermentation, not extracted from a plant or animal, yet it fully biodegrades under composting conditions, with additional certifications as marine and soil biodegradable, and leaves no plastic residue behind. In short, the same bacteria that produce PHA also see it as a food source and can take it apart. Yet, it would not qualify as of plant or animal origin. Anchoring this definition to biological origin, rather than to performance in biodegradability, excludes a class of materials that the Department's own testing standards elsewhere in this chapter are already equipped to evaluate, and works against the state's EPR and on-product labeling laws, which are built to distinguish compostable products from non-compostable contaminants rather than exclude them outright.

We recommend the following revision:

"Organic materials" means any solid waste that is capable of microbial degradation in compost processes, including products meeting the requirements of chapter 70A.455.040 RCW. Organic materials include, but are not limited to, manure, yard

debris, food waste, food processing wastes, clean wood waste, and garden wastes. Organic materials do not include any materials contaminated by herbicides, pesticides, pests, or other sources of chemical or biological contamination that would render a finished product of an organic material management process unsuitable for general public or agricultural use.

WAC 173-350-100 Definition of “Source Separation”

True source separation requires non-compostable, conventional packaging to be separated from organic material at the point of generation, not sorted out afterward at a processing facility. As drafted, the rule does not distinguish a load that has been properly separated at the source from one that has not, which does nothing to protect the quality of finished compost or digestate. It also does nothing to reward the grocers, haulers, and generators who have already invested in education and programs to separate food waste and certified compostable packaging from conventional plastic.

We recommend including the following insight:

"Source separation" means the separation of different kinds of solid waste at the place where the waste originates. Examples of source separation include but are not limited to a food service operation that places certified compostable serviceware and food scraps in one container for recovery, beverage bottles into another container for recycling, and non-compostable packaging, such as condiment packets and conventional plastic cups, into a separate container for disposal; or a grocery store that places food and compostable products together in one bin and any associated non-compostable products in a separate bin for disposal.

WAC 173-350-215 Organic Materials Pre-Processing Standards

The new organic materials pre-processing section allows facilities to remove physical contaminants from feedstocks after collection rather than requiring separation before collection. We are concerned that depackaging units and similar pre-processing technologies cannot reliably remove all non-compostable material from a mixed load containing organic materials and non-compostable inputs. The following peer-reviewed studies have demonstrated that pre-processing technologies demonstrably increase the concentration of persistent microplastics and other contaminants in the final compost and digestate.

[Lopes et al. (2019)]¹ Wet mechanical pre-treatment systems were tested for their efficiency to remove impurities from food scraps collected in home biowaste bins. Results showed that, although 99% of the incoming plastics were efficiently removed in process, the impurities concentration was still too high to meet the legal standards of plastics

¹ Comparison of two mechanical pre-treatment systems for impurities reduction of source-separated biowaste. Waste Management. 2019, <https://www.sciencedirect.com/science/article/pii/S0956053X1930580X>

concentration in the final product, according to the German Federal Compost Quality Association (Bundesgütegemeinschaft Kompost e.V.). Additionally, the removal efficiency of glass particles was low for both processes: at least 80% of the incoming particles were transferred to the wet output.

[Porterfield et al. (2026)]² Without innovations in food packaging design, food waste-derived composts and digestates could discharge ~20,000 tons of plastic to US agricultural soils each year. However, reducing the average half-life of microplastic contamination by increasing the share of biodegradable plastics in food packaging could decrease 100-year plastic accumulation by up to 99%. Additionally, a reduction of plastic separation efficiency, including pre-processing technologies, from 99% to 90% increases plastic discharge 10x.

As an example, the state of Vermont has also been considering the topic of depackaging technologies on non-source separated organics for several years with the support of composters, environmental organizations, and compostable product producers. The state has adopted the approach to not allow commingling of manually source separated food residuals with packaged food nor treatment of manually source separated food residuals by mechanical depackaging in order to protect compost quality and in alignment with the studies noted above.

We ask the Department to state clearly that pre-processing is not a substitute for the source-separation standard requested above, and that feedstocks arriving already source-separated are not required to pass through pre-processing to be accepted as organic material.

Washington has long been a national leader in organics diversion, and we want to see that leadership continue. We thank the Department for its consideration of our comments and urge Ecology to ensure that the definitions and standards in this rule keep certified compostable products, including PHA-based food serviceware and food packaging, recognized as an important part of facilitating the diversion of more food scraps to compost and a bulwark against the proliferation of persistent microplastics in the environment.

Please feel free to reach out with any questions or concerns.

Sincerely,

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² Food waste recycling in the USA can reduce climate and nutrient pollution impacts yet risks plastic accumulation in soils. Nature Food. 2026. <https://www.nature.com/articles/s43016-026-01396-z#MOESM1>