



Scope Overview

Per- and Polyfluoroalkyl Substances in Food Packaging Second Alternatives Assessment

May 25, 2021



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Scope Overview

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Topics for today

- 1. Purpose of draft scope document
- 2. Information in the draft scope
 - Defining food packaging applications
 - Identifying candidate alternatives to PFAS in food packaging
 - Requesting new information
- 3. Ways to give feedback
- 4. Q&A



Background: ESHB 2658 (2018)

- Prohibits sale or distribution in Washington State of food packaging to which PFAS have been intentionally added in any amount
 - Prohibitions are by "specific food packaging application," not all packaging generally
 - Prohibition is for PFAS as a class (defined as "a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom")



Background: ESHB 2658 (2018)

- <u>BEFORE</u> restriction can take effect, Ecology must identify safer alternatives are available through an alternatives assessment (AA):
 - Must evaluate less toxic chemicals and nonchemical alternatives.
 - Must follow IC2 guidelines to evaluate potential alternatives.
- Submitted first set of findings to the Legislature in February 2021
 - Identified safer alternatives for:
 - Wraps and liners.
 - Plates.
 - Food boats.
 - Pizza boxes.
- We're working on a second AA now.



What is the purpose of this document?

- "Scope-of-work" for the second AA
- It contains:
 - Definitions for food packaging applications:
 - Determines what types of food packaging we will look at in this AA
 - Determines what types of food packaging products might be subject to a ban
 - A list of candidate alternatives we plan to evaluate
 - Includes criteria for why we choose to evaluate certain alternatives
 - A list of what information we are currently looking for in this AA

Background—defining "specific food packaging applications"

- Definition of food package (from RCW 70A.222.010(1)):
 - Intended for direct food contact.
 - Comprised, in substantial part, of paper, paperboard, or other materials originally derived from plant fibers.
- PFAS added to food packaging provide oil, grease, and water resistance.



First AA—defining "specific food packaging applications"

- Defined applications based on specific examples of food packaging products.
- Focused on packaging used to hold, store, and transport freshly prepared food (e.g. a sandwich).



First AA: defining "specific food packaging applications"



- Food contact paper (two applications):
 - Wraps and liners.
 - Bags and sleeves.
- **Dinnerware** (four applications):
 - Plates.
 - Bowls.
 - Trays.
 - Food boats.
- Take-out containers (four applications):
 - Pizza boxes.
 - French fry cartons.
 - Clamshells.
 - Interlocking folded containers (also called food containers or pails).
- In the first AA, we found safer alternatives for:
 - Wraps and liners.
 - Plates.
 - Food boats.
 - Pizza boxes.

First AA: defining "specific food packaging applications"



- In the first AA, defined applications based on specific examples of food packaging products.
- Drawbacks:
 - Names used in packaging didn't always align with our definitions.
 - Consumers use many products interchangeably.



Second AA: defining "specific food packaging applications"



- Still focused on holding, storing, and transporting freshly prepared food (e.g. a sandwich).
- Not including applications where we identified safer alternatives in first AA (such as wraps & liners or pizza boxes).
- Using the function of the packaging to define food packaging applications.



- Closed containers: Containers that enclose food on all sides. Interlocking pieces or overlapping walls hold the container closed for transport.
- Examples:
 - Clamshells
 - Bakery boxes
 - Deli containers



- Flat serviceware: Shallow, flat-bottomed containers with large surface areas used for serving food. May have one large surface or multiple compartments to separate food items.
- Examples:
 - Plates
 - Cafeteria-style trays



- Open-top containers: Containers that enclose food on all but one side. They are designed to hold solid foods for serving or transportation.
- Examples:
 - French fry cartons
 - Food boats
 - Paper cones
- Bowl, bags and sleeves can be used as opentop containers, but not all open-top containers can be used as bowls, bags, or sleeves.



- Bags & Sleeves: Flat-bottom bags used to transport food or sealedend bags that can hold food for either service or transport. Made from flexible material.
- **Bowls:** Open-topped containers with wide openings and bottoms that allow spooning of food.
 - Also includes portion cups.





Candidate alternatives to PFAS in food packaging

- For each of the five food packaging applications, we need to identify candidate alternatives to evaluate in the AA.
- Alternatives will be one of three types.
- Principles used to identify candidate alternatives:
 - Food and Drug Administration (FDA) approved.
 - Known/likely safer.
 - Availability in food packaging market.
 - Has publicly available information.
 - Meets environmental performance standards.



Candidate alternatives for second AA

- Alternative chemical treatments: applied to paper instead of PFAS
 - Bio-based coatings
 - Bio-based waxes
 - Polylactic acid (PLA)
 - Plastic coatings
 - Acrylics
 - Polyvinyl alcohol (PVOH) and ethylene vinyl alcohol (EVOH) copolymer
 - Polyethylene (PE) and polyethylene terephthalate (PET)
 - Paraffin wax
 - Clay
 - Siloxanes
 - Proprietary treatments



Candidate alternatives to PFAS in food packaging

- Alternative chemical treatments: applied to paper instead of PFAS
 - Includes alternatives that are:
 - Applied as coatings to surface of paper or paperboard.
 - Added to plant fiber slurry before paper or paperboard is formed.
 - May need to consider alternative mold release agents (or de-molding agents) for molded fiber products.
 - Potential source of PFAS in molded fiber products.
 - Extent of use not well known.



Candidate alternatives to PFAS in food packaging

- Alternative base materials: materials used in place of PFAS-treated paper, either:
 - Plant fiber based (e.g. bamboo, sugarcane, vegetable parchment)
 - Non-fiber based:
 - Biologically derived/compostable plastics (PLA and polyhydroxyalkanoate or PHA)
 - Aluminum
- System alternatives: used instead of disposable packaging
 - Reusable food contact products.



Alternatives to PFAS <u>not considered</u>

- Single-use, petroleum-based plastic materials used in place of PFAStreated paper.
 - Includes polypropylene, PET, high density PE
- Polystyrene materials used in place of PFAS-treated paper.
- Emerging alternative substances.



Information we are looking for

- Reminder: Our alternatives assessment must use IC2 AA guide modules to evaluate potential alternatives:
 - Chemical hazard
 - Exposure
 - Performance
 - Cost and availability
- We're interested in information about:
 - An alternative substance (see candidate alternative list).
 - A product that uses a known, specific alternative substance.



Information we are looking for

- Information to help evaluate chemical hazard or exposure potential:
 - Chemical or product identity.
 - Chemical or product hazard assessments (must use relevant hazard assessment).
 - Physiochemical properties or exposure data.
- Information about the performance of a product made using a known alternative:
 - Promotional materials or product performance data sheets.
 - Information from product consumers about performance.
 - Case studies of product use by companies.



Information we are looking for

- Information about the cost and availability of a product made using a known alternative:
 - Product cost information, such as price differences.
 - Availability of reusable food container programs.
 - Availability of specific alternative chemical treatments or base materials.
 - General cost or availability information about food packaging, such as:
 - Market or price information.
 - Lifecycle costs associated with the use of different types of food packaging.
 - Case studies of PFAS-free food packaging use.



We want to hear your feedback!

- We welcome your feedback during our Q&A session coming up
- We also welcome your feedback in the coming weeks
- A draft of this scope document is on our website:
 - Please submit a comment with your feedback.
 - If you have relevant information for the assessment, reach out!
- Reach out if you'd like to set-up a follow-up meeting.



Expected Timeline

Action	Expected timeframe
Input on draft scope	Now – End June 2021
Revising scope (if needed)	July 2021
Release draft assessment of PFAS as a class for input	Summer 2021
Release draft assessment methods	Fall 2021
Collect new information	Now – End 2021



Questions?

Contact us

Webpage: bit.ly/pfas-food-aa

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Feedback during Q&A

 Definitions Applications should be defined more broadly (on level of packaging category) 	Candidate alternatives
 Information asks goodstartpackaging.com has a lot of alternatives various types with pricing 	 Other feedback Many states are moving to ban PFAS in products, speed is essential Ecology has identified safer materials, can that be enough to find safer alternatives Ecology should work to more quickly incorporate new information about products- market moves quickly Other stakeholders interested in a slower timeline-concerned about pressure caused by recent expanded polystyrene ban