TO: Washington Department of Ecology (via https://ecology.commentinput.com/?id=QbChArB7j)

RE: Carton Council Comments Regarding Draft Preliminary Needs Assessment Report

DATE: October 15, 2026

Dear Washington Department of Ecology:

The Carton Council is composed of four leading carton manufacturers – Elopak, Novolex, SIG, and Tetra Pak. Formed in 2009, the Carton Council works to deliver long-term collaborative solutions to divert valuable cartons from the landfill.

The Carton Council would like to offer comments regarding the **draft Preliminary Needs Assessment report** dated October 1, 2026.

According to Table 13 of the report, in 2024 the quantity of cartons collected from Washington residences was estimated to be:

- Aseptic cartons: 7,451 tons generated; 4,737 tons disposed; 2,604 tons recycled; and 109 tons placed in organics recycling streams (94,310 cubic yards of aseptic cartons generated).
- Gable-top cartons: 12,882 tons generated; 5,959 tons disposed; 6,317 tons recycled; and 605 tons placed in organics recycling streams (163,060 cubic yards of gable-top cartons generated).

According to Table 14, the quantity of cartons generated by self-haulers was estimated to be relatively small:

- Aseptic cartons: 350 tons generated; 339 tons disposed; 10 tons recycled; and none placed in organics recycling streams.
- Gable-top cartons: 589 tons generated; 558 tons disposed; 31 tons recycled; and none placed in organics recycling streams.

When the total residential generation estimate of 21,272 tons from summing the above quantities is divided by Washington's population,[1] the residential generation rate of cartons

[1] April 1, 2024, Washington's population was 8,035,700 according to the Washington State Office of Financial Management.

is estimated to be 5.29 pounds of cartons per capita per year. These generation estimates are higher than what the Carton Council believes to be the actual quantity of food and beverage cartons generated at residences in Washington. It is our understanding that the estimates are based on 15 regional waste composition studies between 2020 and 2025, which the Needs Assessment contractor then extrapolated to statewide residential quantity estimates. It is possible that the method or data used for the extrapolation is overestimating cartons generation.

Although the Carton Council does not have data on the quantity of cartons generated at Washington residences, we believe that the consulting team should consider these additional points and data sources to revise the estimate in the final Preliminary Needs Assessment report:

- Cartons are susceptible to having their apparent weight skewed by adhering contamination and residual contents when samples of waste and recycling are taken during field composition studies. The Oregon Department of Environmental Quality has researched and developed correction factors to adjust field composition data for a variety of materials to estimate clean, dry weights. Applying these contamination correction factors would reduce the weight of cartons estimates derived from field composition studies by approximately 25 percent.[2]

- The Recycling Partnership, in its 2026 State of Recycling Report, Installment Two: The Evolving Ton – Residential Generation Data, 2020-2026, estimates that 598,835 tons of aseptic and gable-top cartons are generated each year nationwide, or 4.0 pounds per person per year based on field data that is uncorrected for contamination and residual contents. These national generation averages are approximately 25 percent less than Cascadia's current estimate for Washington of 5.29 pounds per capita.[3]

[2] The most recent contamination correction factor for cartons available from Oregon DEQ can be found in https://www.oregon.gov/deq/FilterDocs/A01-StatewideWCS16.xlsx and is 75.35 percent of the field weight.
[3] The U.S. population reached approximately 340.1 million (340,110,988) by July 1, 2024, according to the U.S. Census Bureau.

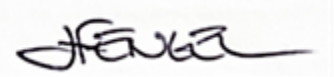
- Oregon DEQ's estimate of cartons generated in Oregon is for 2023 and includes cartons generated from both residential and commercial sectors (corrected to remove residual contents and adhering materials), as follows:
    - Cartons in disposed solid waste totaled 3,524 tons; and
    - Cartons in inbound recycling at materials recovery facilities totaled 1,413 tons per year.

  When divided by Oregon's population,[4] food and beverage cartons generation rates from all sectors in the state was 2.31 pounds per capita, or approximately 40 percent of Cascadia's current estimate for Washington residential generation (Oregon residential-only quantities would be even less).

The Carton Council requests that the needs assessment contractor review these additional points and data sources and consider revising its generation estimates for food and beverage cartons to be more in line with other estimates, which we believe would be more accurate. The Carton Council also understands that there may be several more waste and recycling composition studies conducted in Washington in the next year that should be considered for a revised estimate of cartons generation and recycling in the Final Needs Assessment report to be released in 2027. The Carton Council would be happy to meet with the consultant team to discuss our approach to estimating cartons generation.

Thank you for considering the Carton Council's comments.

Sincerely,



Jordan Fengel,
Executive Director, Carton Council

[4] Portland State University's Population Research Center estimates the state's 2023 population as 4,269,152 (https://drive.google.com/uc?export=download&id=1d0hwKfO3gH2fQ92UguYUAqT51vz3kuKh_)